

Historic, Archive Document

Do not assume content reflects current
scientific knowledge, policies, or practices.

Reserve
A395
R312
Ed. 2

2

U. S. D. A.

S U M M A R Y O F R E G I S T E R E D
A G R I C U L T U R A L P E S T I C I D E C H E M I C A L U S E S

(2nd Edition)

Supplement III

This supplement reflects changes and additions issued in preliminary notices numbered 65-176 through 66-134, plus number 66-151.

Pesticides Regulation Division
Agricultural Research Service
United States Department of Agriculture

Issued: October 1, 1966
Printed: April 1967

U. S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY

MAY 24 1967

CURRENT SERIAL RECORDS

This Supplement III to the second edition of the U.S.D.A. Summary of Registered Agricultural Pesticide Chemical Uses, which is a compilation of agricultural pesticide chemical uses registered with the U.S. Department of Agriculture, reflects additions, deletions, and revisions. The date of issue appears in the lower left-hand corner and the page it replaces is indicated in the lower right-hand corner.



USE CHEMICALS SAFELY--FOLLOW LABEL DIRECTIONS

<u>Name</u>	<u>Page</u>
alpha isomer of 2 carbomethoxy-1-methylvinyl dimethyl phosphate--	115
*ametryne-----	22a
5-amino-4-chloro-2-phenyl-3(2H)pyridazinone and related	
chlorophenyl pyridazinone-----	22b
4-amino-3,5,6-trichloropicolinic acid (as the potassium salt)----	24a
ammonia-----	25a
ammonium nitrate-----	25b
Baytex-----	316a
*benefin-----	83a
Botran-----	254b
3-(p-bromophenyl)-1-methoxy-1-methylurea-----	76b
3-bromopropyne-----	76a
Bromoxynil-----	244a
N-butyl-N-ethyl-a,a,a-trifluoro-2,6-dinitro-p-toluidine-----	83a
3'-chloro-2-methyl-p-valerotoluidide-----	153
2-chloro-N-isopropyl acetamilide-----	151a
Chlorinated benzenes containing 1,2,3,4-tetrachlorobenzene;	
1,2,4-trichlorobenzene; and pentachlorobenzene-----	147a
3-[p-(p-chlorophenoxy)-phenyl]-1,1-dimethylurea-----	154a
Citric acid-----	160a
Cotoran-----	811a
cyanamide-----	203a
Cypromid-----	253a
Demosan-----	253b
3,5-dibromo-4-hydroxybenzonitrile-----	244a
*dichlobenil-----	251
3',4'-dichloro cyclopropane carboxanilide-----	253a
1,4-dichloro-2,5-dimethoxybenzene-----	253b
2,6-dichloro-4-nitroaniline-----	254b
2,5-dichloro-3-nitro benzoic acid, sodium salt-----	254a
o-(2,4-dichlorophenyl) O-methyl isopropyl phosphoramidothioate---	265a
O,O-diethyl o-[p-(methylsulfinyl)phenyl]phosphorothioate-----	296a
Difolatan-----	770
O,O-dimethyl O-[4-(methylthio)-m-tolyl] phosphorothioate-----	316a
dimethylphosphate of 3-hydroxy-N-methyl-cis-crotonamide-----	329a
Dinoben-----	254a
di-sodium salt of 2',2' methylene (3,4,6-trichlorophenol)-----	349a
5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole-----	389a
ethylene glycol bis(trichloroacetate)-----	409a
S-ethyl hexahydro-1H-azepine-1-carbothioate-----	391b
m-(1-ethylpropyl) phenyl methylcarbamate-----	398a
m-(1-ethylpropyl) phenyl methylcarbamate - m-(1-methylbutyl)	
phenyl methylcarbamate-----	398a
Fumaric acid-----	422a
Imidan-----	496a
N-(mercaptomethyl) phthalimide S-(O,O-dimethyl	
phosphorodithioate-----	496a

<u>Name</u>	<u>Page</u>
m-(1-methylbutyl) phenyl methylcarbamate-----	398a
N-methylmercuri-1,2,3,6-tetrahydro-3,6-endomethano-3,4,5,6,7, 7-hexachlorophthalimide-----	532a
methyl mercury propionate-----	537a
4-(methyl sulfonyl)-2,6-dinitro-N,N-dipropylaniline-----	545a
2-methylthio-4-ethylamino-6-isopropylamino-s-triazine-----	22a
Oil of lemon-----	589a
Oil of orange-----	589b
Patoran-----	76b
phenyl mercury nitrate-----	644a
Polystream-----	147a
potassium ammonium ethylene bisdithiocarbamate-----	665a
Propargyl bromide-----	76a
S-propyl butyl ethyl thiocarbamate-----	671
S-propyl dipropyl thiocarbamate-----	670
Pyrazon-----	22b
Sinbar-----	766a
sodium benzoate-----	708a
sodium hypochlorite-----	720a
*solan-----	153
Tenoran-----	154a
3-tert-butyl-5-chloro-6-methyluracil-----	766a
2,3,5,6-tetrachloronitrobenzene-----	770a
Tordon-----	24a
3-(m-trifluoromethylphenyl)-1,1-dimethylurea-----	811a
triphenyl tin hydroxide-----	812d
Zytron-----	265a

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALDRIN*

PRINCIPAL FORMULATIONS: Emulsifiable concentrate containing 2 lbs. per gallon; 50% wettable powder; 75% wettable powder for seed treatment; 2.5% dusts and granular mixtures; 0.1% fertilizer mixtures

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples	0.25	0.25	30 days.
Apricots	0.25	0.25	21 days.
Bananas		3.0	Apply only to surface of ground around trees. When sprays are used, apply coarse spray at low pressure. Avoid contact with leaves.
Barley (seed)		2.0 oz./bu.	Do not use as food or feed.
Beans (seed)		2.0 oz./bu.	Do not use as food or feed.
Beets	0.25	0.5	14 days.
Blackeyed Peas (seed)		2.0 oz./bu.	Do not use as food or feed.
Broccoli	0.25	0.5	14 days.
Brussels sprouts	0.25	0.5	14 days.
Bush & Vine Fruits:			
Blackberries		5.0	Preplanting soil application or when no fruit is present. Double dosage on peat or muck soils.
Blueberries			
Boysenberries			
Cranberries	0.1		Wet or dry bait formulations. Follow preharvest interval required for comparable dosage on each crop.
Currants		0.25	
Dewberries			
Gooseberries			
Grapes	0.1		
Huckleberries			
Loganberries			
Raspberries			
Strawberries	0.1		
Youngberries			

*1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-1,4-endo-exo-5,8-dimethanonaphthalene

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cabbage	0.25	0.5	21 days.
Cantaloupes	0.1	0.5	7 days.
Carrots	0.25	0.5	7 days.
Cauliflower	0.25	0.5	21 days.
Cherries	0.1	0.25	21 days.
Citrus Fruits:			
Grapefruit	0.25	0.25	Foliage application, or wet or dry bait formulation. Do not apply within 30 days of harvest.
Kumquat			
Lemons	0.25		
Limes	0.25		
Oranges	0.25	5.0	Soil application. Do not contaminate fruit. Double dosage on peat or muck soils when no fruit is present.
Tangerines	0.25		
Tangeloes			
Corn			
Field	0	2.0	Broadcast soil application during early summer for control of Hippolates eye gnats. Mix insecticide with top 3 inches of soil.
Pop			
Sweet			
Corn (seed)		2.0 oz./bu.	Do not use as food or feed.
Cotton		1.5	Do not apply after bolls open. Do not graze meat or dairy animals in treated fields.
		2.0	Broadcast soil application during early summer for control of Hippolates eye gnats. Mix insecticide with top 3 inches of soil.
Cotton (seed)		2.0 oz./bu.	Do not use as food or feed.
Cowpeas (seed)		2.0 oz./bu.	Do not use as food or feed.
Cranberries	0.1	0.25	21 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cucumbers	0.25	0.5	7 days.
Deciduous Fruits and Nuts:			
Almonds		5.0	Soil application when no fruit is present.
Apples	0.25		Double dosage on peat or muck soils.
Apricots	0.25		
Cashews		0.25	Wet or dry bait formulations. Follow
Cherries	0.1		preharvest interval required for com-
Chestnuts			parable dosage for each crop.
Dates			
Figs			
Filberts			
Hazelnuts			
Hickory nuts			
Nectarines	0.1		
Olives			
Peaches	0.1		
Pears	0.25		
Pecans			
Persimmons			
Plums	0.1		
Pomegranate			
Prunes	0.1		
Quinces	0.25		
Walnuts			
Eggplants	0.1	0.5	3 days.
Field, Fiber & Forage Crops:			
Buckwheat		5.0	Preplanting soil application or at time
Corn	0		of planting or transplanting. Double
Cotton			dosage on peat or muck soils.
Flax			
Hops		0.25	Wet or dry bait formulations. Follow
Popcorn	0		preharvest intervals required for
Safflower			comparable dosage on each crop.
Sugarcane			
Flax		0.25	Do not feed to dairy animals within 28
			days after treatment. Do not feed to
			animals being finished for slaughter.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALDRIN

USE	TOLERANCE (ppm)	DOSAGE lbs. actual/A.	LIMITATIONS
Grain Crops (seed)		2.0 oz./bu.	Do not use as food or feed.
Grapefruit	0.25	0.25	30 days.
Grapes	0.1	0.25	7 days.
Kohlrabi	0.25	0.5	14 days.
Lemons	0.25	0.25	30 days.
Lettuce	0.25	0.5	30 days.
Lima Beans (seed)		2.0 oz./bu.	Do not use as food or feed.
Limes	0.25	0.25	30 days.
Mangoes	0.1	0.25	21 days.
Melons	0.1	0.5	7 days.
Mint		5.0	Preplanting soil application or just prior to fall or spring discing or harrowing in old plantings.
Nectarines	0.1	0.25	21 days.
Oats (seed)		2.0 oz./bu.	Do not use as food or feed.
Onions	0.25	0.5	Apply in a 12 inch band over row. Make one application when seedlings first appear, a second 10 days later, and a third at the middle of the growing season.
Oranges	0.25	0.25	30 days.
Peaches	0.1	0.25	21 days.
Peanuts (seed)		2.0 oz./bu.	Do not use as food or feed.
Pears	0.25	0.25	30 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Peas (seed)		2.0 oz./bu.	Do not use as food or feed.
Peppers	0.1	0.5	3 days.
Pimentoes	0.1	0.5	3 days.
Pineapples	0.1	2.0	30 days. Do not feed husks to meat or dairy animals.
		10.0	Preplanting soil treatment.
Potatoes	0.1	0.5	No limitation.
Plums	0.1	0.25	21 days.
Prunes	0.1	0.25	21 days.
Pumpkins	0.1	0.5	7 days.
Quinces	0.25	0.25	30 days.
Radishes	0.1	0.5	7 days.
Rice (seed)		4.0 oz./bu.	Do not use as food or feed.
Rutabagas (including tops)	0.25	0.5	14 days.
Rye (seed)		2.0 oz./bu.	Do not use as food or feed.
Safflower (seed)		2.0 oz./100 lbs.	Do not use treated seed for food, feed, or oil.
Sorghum (grain & cane)	0	0.125	21 days. Single application.
		0.25	30 days. Single application.
		3.0	Preplanting soil application.
Sorghum (seed)		2.0 oz./bu.	Do not use as food or feed.
Soybeans (seed)		2.0 oz./bu.	Do not use as food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Squash			
Summer	0.25	0.5	7 days.
Winter	0.1	0.5	7 days.
Sweet potatoes	0.1	0.5	No time limitations.
Tangerines	0.25	0.25	30 days.
Tomatoes	0.1	0.5	1 day.
Tropical Fruits:			
Avocados		5.0	Soil application when no fruit is present. Double dosage on peat or muck soils.
Guavas			
Mangoes	0.1		
Papayas			
Passion fruit		0.25	Wet or dry bait formulations. Follow preharvest interval required for comparable dosages on each crop.
Turnips	0.25	0.5	14 days.
Vegetables:			
Asparagus	0.1	5.0	Preplanting soil application, at time of planting or transplanting, or before edible parts start to form. Do not apply to land which will be planted in potatoes.
Beans	0		
Beets	0.25		
	(roots & tops)		
Broccoli	0.25		
Brussels sprouts	0.25	0.25	Wet or dry bait formulations. Do not contaminate edible parts. Follow preharvest limitation required for comparable dosage on each crop.
Cabbage	0.25		
Cantaloupes	0.1		
Cauliflower	0.25		
Celery	0.1		
Corn	0		
Cucumbers	0.25		
Eggplants	0.1		
Garlic	0.25		
Leeks	0.25		
Lettuce	0.25		
Melons			
Okra			
Onions	0.25		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (cont.)		lbs. actual/A.	
Peppers	0.1	5.0	Preplanting soil application, at time of planting or transplanting, or before edible parts start to form. Do not apply to land which will be planted in potatoes.
Pimientos	0.1		
Pumpkins	0.1		
Radishes	0.25		
Rutabagas	0.25		
Shallots	0.25		
Squash (summer)	0.25	0.25	Wet or dry bait formulations. Do not contaminate edible parts. Follow preharvest limitation required for comparable dosage on each crop.
Squash (winter)	0.1		
Tomatoes	0.1		
Turnips	0.25		
	(roots & tops)		
Watermelons	0.1		
Wheat (seed)		2.0 oz./bu.	Do not use as food or feed.
Agricultural Premises:			
Greenhouse		6.0	Preplanting soil application or at time of planting or transplanting.
Imported Fire Ant Control		2.0	Apply to uncultivated land or when no food crops are present. Repeat in 10 days if necessary.
		0.25% in water	Mound treatment. Thoroughly saturate each mound.
		1.5% dust	Mound treatment. Open mound and mix 2 cups of dust with soil. Apply a band of dust 2 ft. wide around the base of mound.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

4-AMINO-3,5,6-TRICHLOROPICOLINIC ACID
AS THE POTASSIUM SALT

PRINCIPAL FORMULATIONS: 24.9% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cropland		lbs. actual/A. 3.0	Spot treatment. Do not plant treated land to grass crops to be used for food or feed within 2 years after application, or to broadleaf crops within 3 years after application. Do not graze treated areas. Do not contaminate water used for domestic purposes.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

AMMONIUM SULFAMATE*

PRINCIPAL FORMULATIONS: 80% and 95% soluble powders

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples	5	57 lbs./100 gals. water	Spot treatment. Apply as a wetting spray to poison ivy in full leaf. Keep spray off tree foliage and fruit.
Pears	5	57 lbs./100 gals. water	Spot treatment. Apply as a wetting spray to poison ivy in full leaf. Keep spray off tree foliage and fruit.
Rangelands and pastures		100 lbs./100 gals. water	For the control of woody plants, wet foliage thoroughly. Apply after brush reaches full leaf stage until leaves change color in fall.

*AMS

Issued: 10-1-66

27

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ANILINO CADMIUM DILACTATE - PHENYL MERCURY FORMAMIDE MIXTURE

PRINCIPAL FORMULATIONS: Proprietary mixture of 6.25% anilino cadmium dilactate and 6.25% phenyl mercury formamide

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz./bu.	
Barley		5.0	Seed treatment only. Do not use treated seed for food, feed, or oil.
Flax		5.0	Seed treatment only. Do not use treated seed for food, feed, or oil.
Oats		5.0	Seed treatment only. Do not use treated seed for food, feed, or oil.
Rye		5.0	Seed treatment only. Do not use treated seed for food, feed, or oil.
Sorghum		5.0	Seed treatment only. Do not use treated seed for food, feed, or oil.
Wheat		5.0	Seed treatment only. Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ATRAZINE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Pineapples		lbs. actual/A. 6.4	Broadcast application immediately after planting or after plant crop harvest is completed.
		1.6	Apply at 1-2 month intervals. Do not apply more than 30 lbs. per acre per crop cycle. Do not apply within 160 days of fruit harvest. If forage is to be fed to livestock, allow 250 days between last application and feeding.
Sorghum		3.0	Preemergence or early postemergence application before weeds are 1 1/2 inches high. May incorporate 1/2 to 1 1/2 inches deep. Do not plant any crop other than corn or sorghum on treated area within 18 months after application. Do not graze or feed forage from treated area within 60 days after application.
		4.0	<u>Gulf States Only.</u> Preemergence or early postemergence application before weeds are 1 1/2 inches high. May incorporate 1/2 - 1 1/2 inches deep. Do not plant treated soil to any crop other than those on registered label for 18 months after application. Do not graze or feed forage for 90 days after application.
Sugarcane		4.0	Preemergence application at time of planting or ratooning and before weeds or cane have emerged. or Postemergence application. Apply once as overall treatment or twice between rows as directed spray. Do not apply more than 10 lbs./A./season. Apply no later than "close in" after planting, ratooning, or stubble crop.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BACILLUS THURINGIENSIS BERLINER

PRINCIPAL FORMULATIONS: Dust containing 5 billion viable spores per gram of product; wettable powder containing 25 billion viable spores per gram of product.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Alfalfa	Exempt	4.5×10^{13} viable spores/ acre	No time limitations.
Artichokes	Exempt	10.8×10^{13} viable spores/ acre	No time limitations.
Bananas	Exempt	5.5×10^{13} viable spores/ acre	No time limitations.
Beans	Exempt	10.8×10^{13} viable spores/ acre	North Carolina and Virginia only. No time limitations.
Broccoli	Exempt	10.8×10^{13} viable spores/ acre	No time limitations.
Cabbage	Exempt	10.8×10^{13} viable spores/ acre	No time limitations.
Cauliflower	Exempt	10.8×10^{13} viable spores/ acre	No time limitations.
Celery	Exempt	10.8×10^{13} viable spores/ acre	No time limitations.
Collards	Exempt	8.6×10^{13} viable spores/ acre	No time limitations.
Grapes	Exempt	1.2×10^{14} viable spores/ acre	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BACILLUS THURINGIENSIS BERLINER

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Kale	Exempt	8.6×10^{13} viable spores/ acre	No time limitations.
Lettuce	Exempt	10.8×10^{13} viable spores/ acre	No time limitations.
Melons	Exempt	10.8×10^{13} viable spores/ acre	No time limitations.
Mustard (greens)	Exempt	8.6×10^{13} viable spores/ acre	No time limitations.
Potatoes	Exempt	10.8×10^{13} viable spores/ acre	No time limitations.
Spinach	Exempt	10.8×10^{13} viable spores/ acre	North Carolina and Virginia only. No time limitations.
Strawberries	Exempt	1.2×10^{14} viable spores/ acre	No time limitations.
Sweet corn	Exempt	1.8×10^{14} viable spores/ acre	No time limitations.
Tomatoes	Exempt	6.7×10^{13} viable spores/ acre	No time limitations.
Turnips (greens)	Exempt	8.6×10^{13} viable spores/ acre	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BARBAN*

PRINCIPAL FORMULATIONS: 11.8% and 23.6% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Barley		0.5	Apply when majority of wild oats are in 2-leaf stage or rye grass is in seedling stage. Do not apply after crop reaches 4-leaf stage. Do not allow livestock to graze on treated fields until after harvest of crop.
Flax		0.38	Apply when majority of wild oats are in 2-leaf stage (4-9 days after emergence). Do not apply after crop reaches 12-leaf stage (or 2 weeks after crop emerges). Do not feed treated flax straw to livestock.
Lentils		0.38	Apply when majority of wild oats are in 2-leaf stage. Do not apply after crop is in 4-leaf stage or 14 days after crop emergence. Do not feed treated forage or pods to livestock.
Mustard (oil crop)		0.38	Apply when majority of wild oats are in 2-leaf stage. Do not apply after crop is in 3-leaf stage or 14 days after crop emergence. Do not feed treated forage or pods to livestock.
Peas		0.38	Apply when wild oats are in 2-leaf stage (4-9 days after emergence). Do not apply after crop reaches 6-leaf stage (or 10 days after crop emerges). Do not allow livestock to graze treated pea stubble (lower 3 inches of stem).
Safflower		0.38	Apply when wild oats are in 2-3 leaf stage. Do not apply after safflower reaches 8-leaf stage. Do not allow livestock to graze on treated fields until after harvest of crop.

*4-chloro-2-butynyl m-chlorocarbamate

Issued: 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BARBAI

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Soybeans		lbs. actual/A. 0.30	Apply when majority of wild oats are in 2-leaf stage. Do not apply after first trifoliate leaf stage of crop. Do not apply later than 14 days after emergence. Do not allow livestock to graze treated fields until after harvest of crop. Do not feed treated forage or pods to livestock.
Sugar beets		1.0	Apply when wild oats are in 2-leaf stage (4-9 days after emergence). Do not apply later than 1 month after crop emerges. Do not allow livestock to graze treated fields until after crop is harvested.
Wheat Spring Durham		0.5	Apply when majority of wild oats are in 2-leaf stage. Do not apply after crop reaches 4-leaf stage. Do not allow livestock to graze on treated fields until after harvest of crop.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DARIUM FLUOSILICATE

PRINCIPAL FORMULATIONS: Technical material

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bush and Vine Fruits: Blackberries Blueberries Boysenberries Cranberries Currants Dewberries Gooseberries Grapes Huckleberries Loganberries Raspberries Strawberries Youngberries Deciduous Fruits & Nuts: Almonds Apples Apricots Avocados Bananas Cachews Cherries Chestnuts Dates Figs Filberts Guavas Hazelnuts Hickory Nuts Mangoes Nectarines Olives Papayas Passion Fruit Peaches		lbs. Actual/A. 10.0 10.0	Do not apply after edible parts start to form. Do not apply after edible parts start to form.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BENEFIN*

PRINCIPAL FORMULATIONS: 19.4% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Lettuce (seeded)		lbs. actual/A. 1.125	Preplant soil incorporation, 2 to 3 weeks before seeding to planting time. Do not feed forage from treated fields to livestock. Do not plant wheat, barley, rye, grass or onions within 10 months after application. Do not plant milo, corn, oats, beets or spinach within 12 months after application.

*N-butyl-N-ethyl-a,a,a-trifluoro-2,6-dinitro-p-toluidine

46a

Issued: 10-1-66

Follows page 46

USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,1-BIS (CHLOROPHENYL)-2,2,2-TRICHLOROETHANOL*

PRINCIPAL FORMULATIONS: 10.5% wettable powder; 10.5% emulsifiable concentrate containing 1.91 lbs. of technical "Kelthane" per gallon (1.62 lbs. of active ingredient per gallon)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		4.0	14 days. Do not feed treated hulls to livestock. or Do not apply after nuts begin to form (in this case hulls may be fed to livestock).
Apples	5.0	4.5	7 days.
Apricots	10.0	3.2	14 days.
Avocadoes		4.0	Apply before fruit forms or after harvest only.
Beans			
Dry	5.0	0.6 (spray)	7 days. Do not feed treated vines to meat or dairy animals.
Green		1.5 (dust)	
Lima		1.0 (spray)	California only. 45 days. Do not feed treated vines or forage to dairy animals or animals being finished for slaughter.
Beans			
Dry	5.0	0.6 (spray)	45 days. Do not feed treated vines to meat or dairy animals.
Blackberries	5.0	1.2	2 days.
Boysenberries	5.0	1.2	2 days.
Bushnuts	5.0	4.0	14 days.
Butternuts	5.0	4.0	14 days.
Cantaloupes	5.0	0.6 (spray) 1.5 (dust)	2 days.
Cherries	5.0	3.2	7 days. Do not repeat application within 30 days.

*Proprietary name: "Kelthane"
Issued: 10-1-66

65

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,1-BIS (CHLOROPHENYL)-2,2,2-TRICHLOROETHANOL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Chestnuts	5.0	4.0	14 days.
Citrus (all)	10.0	8.0	7 days.
Corn (Field corn only)		1.6	Do not apply after ears begin to form. Do not ensile treated corn or use it as forage.
Cotton	0.1 (on seed)	1.6	14 days. Do not graze treated fields by meat or dairy animals.
Crabapples	5.0	4.5	7 days.
Cucumbers	5.0	0.6 (spray) 1.5 (dust)	2 days.
Dewberries	5.0	1.2	2 days.
Eggplants	5.0	0.8 (spray) 1.5 (dust)	2 days.
Figs	5.0	2.0	7 days. Do not repeat application within 30 days.
Grapes	5.0	1.2 (spray) 1.5 (dust)	7 days.
Hops	30.0	1.2 (spray) 1.5 (dust)	7 days.
Loganberries	5.0	1.2	2 days.
Melons	5.0	0.6 (spray) 1.5 (dust)	2 days.
Mint		1.5	Apply only to mint grown in Pacific Northwest States for commercial oil production. No application within 30 days of harvest. Do not ship interstate, or feed fresh or spent mint hay to dairy animals or animals being finished for slaughter.
Nectarines	10.0	3.2	14 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,1-BIS (CHLOROPHENYL)-2,2,2-TRICHLOROETHANOL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Nuts (all)	5.0	lbs. actual/A. 4.0	14 days.
Peaches	10.0	3.2	14 days.
Pears	5.0	4.5	7 days.
Peppers	5.0	0.8 (spray) 1.5 (dust)	2 days.
Plums	5.0	2.0	7 days. Do not repeat application within 30 days.
Potatoes		1.5	No limitations.
Prunes	5.0	2.0	7 days. Do not reapply within 30 days.
Pumpkins	5.0	0.6 (spray) 1.5 (dust)	2 days.
Quinces	5.0	4.5	7 days.
Raspberries	5.0	1.2	2 days.
Squash			
Summer	5.0	0.6 (spray)	2 days.
Winter		1.5 (dust)	
Strawberries	5.0	2.4	2 days.
Sugar Beets		6.0	60 days. Do not feed treated tops to livestock. Limited to Northwest.
		1.2	21 days. Do not feed crop residues (tops) to dairy animals or meat animals.
Tomatoes	5.0	0.8 (spray) 1.5 (dust)	2 days.
Watermelons	5.0	0.6 (spray) 1.5 (dust)	2 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BIS (DIALKOXYPHOSPHINOTHIOYL) DISULFIDE*

PRINCIPAL FORMULATIONS: 8% and 82% emulsifiable concentrate with dormant oil

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		4.0	Dormant application only. Use limited to Pacific Coast States.
Apples		4.0	Dormant application only. Use limited to Pacific Coast States.
Nectarines		6.0	Dormant application only. Use limited to Pacific Coast States.
Peaches		6.0	Dormant application only. Use limited to Pacific Coast States.
Pears		4.0	Dormant or delayed dormant application only.
Plums		6.0	Dormant application only. Use limited to Pacific Coast States.
Prunes		6.0	Dormant application only. Use limited to Pacific Coast States.

*Proprietary name: "Phostex"

Issued: 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

3-BROMOPROPYNE

PRINCIPAL FORMULATIONS: 6.8% liquid formulated with methyl bromide and chloropicrin

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	Inorganic bromides	lbs. actual/A.	
Soil fumigation			
Broccoli	25§	14-18	Preplanting soil fumigation. Allow 2 days exposure at 60° temperature or above, 3-4 days if temperature is under 60°. Aerate soil until odor is gone (usually 2-3 weeks).
Cauliflower	25§	14-18	
Eggplant	60§	14-18	
Muskmelons	40§	14-18	
Peppers	25§	14-18	
Pineapple	25§	14-18	
Strawberries	25§	14-18	
Tomatoes	40§	14-18	
§Resulting from soil fumigation with 6.8% liquid formulated with methyl bromide and chloropicrin.			

Proprietary name: Propargyl bromide 76a

Issued: 10-1-66

Follows page 76

USDA Summary of Registered Agricultural Pesticide Chemical Uses

3-(p-BROMOPHENYL)-1-METHOXY-1-METHYLUREA *

PRINCIPAL FORMULATIONS: 50% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Potato (seed crop)		lbs. actual/A. 3.0	Preemergence application at time of planting or at drag-off. Do not use potatoes for food or feed. or Postemergence directed spray when crop is 6 inches tall to layby. Do not use potatoes for food or feed.

*Proprietary Name: Patoran

76b

Issued: 10-1-66

Follows page 76a

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CAPTAN*

PRINCIPAL FORMULATIONS: 25% and 80% wettable powder
 50% and 60% wettable powder
 75% wettable powder (seed treatment only)
 5.0%, 7.5%, 10.0% and 20.0% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	100	8.0	Five weeks after petal fall.
		16.0	12 days. Do not feed treated hulls to dairy animals or animals being finished for slaughter.
Apples	100	8.0	No time limitations.
		0.12% solution	Postharvest spray or dip.
Apricots	100	5.0	Cover sprays--no time limitations.
		0.12% solution	Postharvest spray or dip.
Asparagus		1.5 lbs./100 gals. water	Preplanting root dip.
Avocados	100	10.0	No time limitations.
Barley		1.2 oz./100 lbs.	Seed treatment (dry).
		1.9 oz./100 lbs.	Seed treatment (slurry).
			Do not use treated seed for food or feed.
Beans (dry and succulent)	100	6.0	Preplanting soil treatment.
		1.5	No time limitations.
		1.9 oz./100 lbs.	Seed treatment (dry).
		1.5 oz./100 lbs.	Seed treatment (slurry).
			Do not use treated seed for food or feed.
Beets, garden (roots & tops)	100	1.5	No time limitations.
		3.3	Preplanting soil treatment.
Blackberries	100	3.0	No time limitations.

*N-trichloromethylmercapto-4-cyclohexene-1:2-dicarboximide

Issued: 10-1-66

101

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CAPTAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Blueberries	100	2.5	No time limitations.
Broccoli	100	14.0	Preplanting soil application only.
Brussels sprouts	100	14.0	Preplanting soil application only.
Cabbage	100	14.0	Preplanting soil application only.
Cantaloupes	100	3.8	No time limitations.
		0.25% solution	Post-harvest spray or dip.
		7.5	Preplanting soil treatment only.
Carrots (Roots)	100	3.0	No time limitations.
Cauliflower	100	14.0	Preplanting soil application only.
Celery	100	2.0	No time limitations.
		6.5	Plant bed treatment.
Cherries	100	10.0	No time limitations.
		0.125% solution	Post-harvest dip.
Citrus Fruits:			
Grapefruit	100	10.0	No time limitations.
Lemons	100		
Limes	100	0.12% solution	Post-harvest dip or spray. Do not feed raw citrus byproducts bearing captan residues to dairy animals or animals being finished for slaughter.
Oranges	100		
Tangeloes	100		
Tangerines	100		
Oranges	100	5.0	Apply as after bloom spray from 2/3 petal fall until fruit reaches approximately 1/2 inch in diameter. Do not feed treated raw citrus byproducts to livestock.
Tangeloes	100		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CAPTAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cole Crops		7.5	Preplanting soil application only.
Corn (sweet)	100	2.0	10 days. Do not feed forage to dairy animals or animals being finished for slaughter.
		6.0	Preplanting soil application.
		1.8 oz./100 lbs.	Seed treatment (dry).
		2.0 oz./100 lbs.	Seed treatment (slurry).
			Do not use treated seed for food or feed.
Corn (field)		1.2 oz./100 lbs. seed	Seed treatment (slurry).
			Do not use treated seed for food or feed.
Cotton	100 (on cotton seed)	6.0	Seed row treatment at planting time.
		2.7 oz./100 lbs.	Seed treatment (dry).
		4.0 oz./100 lbs.	Seed treatment (slurry).
			Do not use treated seed for food, feed, or oil.
Cowpeas		2.3 oz./100 lbs.	Seed treatment (dry).
		1.5 oz./100 lbs.	Seed treatment (slurry).
			Do not use treated seed for food or feed.
Cranberries	100	3.5	No time limitations.
Cucumbers	100	3.8	No time limitations.
		0.25% solution	Post-harvest spray or dip.
Dewberries	100	3.0	No time limitations.
Eggplants	100	3.0	No time limitations.
		7.5	Preplanting soil treatment only.
		6.0	Plant bed treatment when seeds have germinated.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CAPTAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Flax		2.7 oz./100 lbs. 1.9 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry) Do not use treated seed for food, feed, or oil.
Gooseberries		3.75	Do not apply after fruit begins to form.
Grapes	100	5.0	No time limitations.
		1.5	Post-harvest aerial application to fruit in drying trays in the field.
		1.0	Post-harvest application to fruit in drying trays in the field. Apply with ground equipment.
Honeydew melons	100	3.8	No time limitations.
Lettuce	100	2.5	No time limitations.
		7.2	Preplanting soil application only.
Mangoes	100	10.0	No time limitations.
		0.12% solution	Post-harvest spray or dip. Do not feed raw byproducts bearing captan residues to dairy animals or animals being finished for slaughter.
Melons	100	3.8	No time limitations.
Milo		3.0 oz./100 lbs. 3.0 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Nectarines	100	5.0	No time limitations.
		0.12% solution	Post-harvest spray or dip.
Oats		2.0 oz./100 lbs. 2.8 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CAPTAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Onions (green and bulb)	100	lbs. actual/A. 1.5	No time limitations.
		2.0	Furrow treatment to muck soils.
		0.12% solution	Postharvest spray or dip.
Packing boxes		1 lb./100 gals.	Spray boxes prior to packing fruits or vegetables or use as a dip.
Peaches	100	5.0	No time limitations.
		6.0	1 day.
		0.12% solution	Postharvest spray or dip.
Peanuts		6 oz./100 lbs.	Seed treatment (dry). Do not use treated seed for food, feed, or oil.
Pears	100	8.0	No time limitations.
		0.12% solution	Postharvest spray or dip.
Peas	100 (dry & succu- lent)	6.0	Preplant soil treatment.
		1.2 oz./100 lbs.	Seed treatment (dry).
		1.8 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food or feed.
Peppers	100	3.0	No time limitations.
		6.0	Plant bed treatment after seeds have germinated.
		7.5	Preplanting soil treatment.
Pimentoes	100	3.0	No time limitations.
		6.0	Plant bed treatment.
Pineapples	100	10.0	No time limitations.
		0.6% in water	Postharvest dip or wash.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CAPTAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Plums	100	5.0	No time limitations.
Potatoes	100	0.12% solution	Post-harvest spray or dip.
		5.0	No time limitations.
		0.5 lb./bushel	Seed piece treatment.
Prunes	100	5.0	No time limitations.
Pumpkins	100	3.8	No time limitations.
Quinces	100	5.0	7 days.
Raspberries	100	3.0	No time limitations.
Rhubarb (Forcing under glass)	100	1.5	No time limitations.
Rice		2.7 oz./100 lbs. 1.7 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Rye		1.6 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food or feed.
Safflower		0.3 oz./100 lbs.	Seed treatment (dry). Do not use treated seed for food, feed, or oil.
Sesame		1.0 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Sorghum		3.0 oz./100 lbs. 2.3 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CAPTAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Soybeans		lbs. actual/A.	
		6.0	Soil treatment at planting time.
		2.0 oz./100 lbs. 1.3 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Spinach	100	3.5	Apply to furrow at time of planting.
		4.0	No time limitations.
		6.0	Preplanting soil treatment.
Squash (summer and winter)	100	3.8	No time limitations.
Strawberries	100	3.8	No time limitations.
Sunflowers		0.5 oz./100 lbs.	Seed treatment (dry). Do not use treated seed for food, feed, or oil.
Tomatoes	100	5.0	No time limitations.
		7.5	Preplanting soil treatment.
Field and greenhouse	100	0.5 pint of 0.12 solution per plant	Transplant water.
Watermelons	100	3.8	No time limitations.
Wheat		1.2 oz./100 lbs.	Seed treatment (dry).
		2.0 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CARBARYL*

PRINCIPAL FORMULATIONS: 50% wettable powder; 25 and 50% dust base; 5% dust; 20% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa	100	1.5	No time limitations.
Almonds	10 (whole almonds)	8.0	No time limitations.
	40 (almond hulls)		
Apples	10	12.0	1 day.
Apricots	10	2.0	3 days.
Asparagus	10	2.0	Apply during cutting season. Do not repeat application within 3 days. Do not apply within 1 day of harvest.
		4.0	Postharvest application to ferns and brush growth.
Bananas	10	1.1	Single application. No time limitations.
Beans	10	2.125	No time limitations.
Beets	5 (roots) 12 (tops)	2.0	Do not apply within 3 days of harvest. Do not apply within 14 days of harvest, if tops are to be used as food or feed.
Blackberries	12	2.0	7 days.
Blueberries	10	2.0	No time limitations.
Boysenberries	12	2.0	7 days.
Broccoli	10	2.0	3 days.
Brussels sprouts	10	2.0	3 days.

*1-naphthyl n-methylcarbamate
Proprietary name: "Sevin"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CARBARYL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Okra	10	2.0	No time limitations.
Olives	10	8.0	No time limitations.
Parsley	12	2.0	14 days.
Parsnips	5 _a	2.0	3 days.
Peaches	10	8.0	1 day.
Peanuts	5 (on pea- nuts) 100 (hay)	1.5	No time limitations.
Pears	10	12.0	1 day.
Peas	10 (peas with pods) 100 (forage)	1.5	No time limitations.
Pecans		10.0	Do not apply after husk-split.
Peppers	10	4.0	No time limitations.
Plums	10	6.0	1 day.
Potatoes		2.0	Foliage application only.
Prunes	10	6.0	1 day.
Pumpkins	10	1.0	No time limitations.
Radishes	5	2.0	3 days.
Raspberries	12	2.0	7 days.
Rice	5 (grain) 100 (straw)	2.0	14 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CARBARYL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Rutabagas	5	2.0	3 days.
Salsify	5 (roots) 10 (tops)	2.0	Do not apply within 3 days of harvest. Do not apply within 14 days of harvest, if tops are to be used as food or feed.
Small Grains:			
Barley	0	1.0	Do not apply after boot stage (when grain heads are visible). No time
Oats	(grain)		limitation on grain forage for use as
Rye			pasture or feed to livestock.
Wheat	100 (straw)		
Sorghum	10 (grain) 100 (forage)	2.0	21 days for grain. No time limitations for forage.
Soybeans	5 (beans) 100 (forage & hay)	1.5	No time limitations.
Spinach	12	2.0	14 days.
Squash (summer and winter)	10	1.0	No time limitations.
Strawberries	10	2.0	1 day.
Sugar beets	100 (tops)	2.0	14 days.
Sugarcane		3.0	Granular formulations. Do not apply within 30 days of harvest for processing.
Swiss chard	12	2.0	14 days.
Tomatoes	10	4.0	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALPHA ISOMER OF 2-CARBOMETHOXY-1-METHYLVINYL DIMETHYL PHOSPHATE

PRINCIPAL FORMULATIONS: 10% wettable powder; 1%-2% dusts; emulsifiable concentrate containing 2 lbs. of active ingredient per gallon; water soluble solution containing 2 lbs. of active ingredient per gallon

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa	1.0	0.5	1 day.
Apples	0.5	3.2	1 day.
Artichokes	1.0	1.0	2 days.
Asparagus		0.5	3 days.
Barley		0.5	14 days.
Beans	0.25	0.5	1 day.
Beets (including tops)	1.0	0.5	3 days.
Broccoli	1.0	0.5 1.0	1 day. 3 days.
Brussels sprouts	1.0	1.0	3 days.
Cabbage	1.0	0.5 1.0	1 day. 3 days.
Cantaloupe	0.5 (edible portion)	0.5	1 day.
Carrots	0.25	0.5	1 day.
Cauliflower	1.0	1.0	3 days.
Celery	1.0	0.5 1.0	3 days. 5 days.
Cherries	1.0	2.6	2 days.
Clover	1.0	0.5	1 day.

*Proprietary name: "Phosdrin," Phosdrin insecticide contains not less than 60% of the alpha isomer of 2-carbomethoxy-1-methylvinyl dimethyl phosphate and not more than 40% of insecticidally active, related compounds
 Issued: 10-1-65 115 Replaces page issued 2-10-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses
 ALPHA ISOMER OF 2-CARBOMETHOXY-1-METHYLVINYL DIMETHYL PHOSPHATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Collards	1.0	0.5	3 days.
		1.0	7 days.
Corn:			
Field	0.25	0.5	1 day.
Pop	on grain		
Sweet	1.0		
Forage	on		
Grain	forage		
Cotton		0.75	3 days.
Cucumbers	0.25	0.5	1 day.
Cucumbers Greenhouse	0.25	0.1 lb./ 50,000 cu.ft.	1 day.
Eggplants	0.25	0.5	1 day.
Flax		0.5	1 $\frac{1}{4}$ days.
Grapefruit	0.25	2.0	1 day. Allow 7 days between applications.
Grapes	0.5	1.0	2 days.
Grass Pasture Range		0.5	1 day (5 days before cutting for grass hay to be shipped interstate).
Honeydew melons	0.5 (edible portions)	0.5	1 day.
Kale	1.0	0.5	3 days.
		1.0	7 days.
Lemons	0.25	2.0	1 day. Allow 7 days between applications.
Lettuce	0.5	0.5	2 days.
		1.0	4 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses
ALPHA ISOMER OF 2-CARBOMETHOXY-1-METHYLVINYL DIMETHYL PHOSPHATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Lettuce (greenhouse)	0.5	1.15 lbs./ 50,000 cu.ft.	10 days.
Mint		0.5	30 days.
Muskmelons	0.5 (edible portions)	0.5	1 day.
Mustard greens	1.0	0.5	3 days.
Oats		0.5	14 days.
Okra	0.25	0.5	1 day.
Onions	0.25 on green onions	0.5	1 day.
Oranges	0.25	2.0	1 day. Allow 7 days between applications.
Peaches	1.0	2.56	1 day.
Pears	0.5	3.2	1 day.
Peas (including forage)	0.25 on peas 1.0 on forage	0.5	1 day.
Peppers	0.25	0.5	1 day.
Plums	1.0	2.56	1 day.
Potatoes	0.25	0.25	1 day.
Pumpkins		0.5	14 days.
Raspberries	1.0	0.64	3 days.
Safflower		0.5	7 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALPHA ISOMER OF 2-CARBOMETHOXY-1-METHYLVINYL DIMETHYL PHOSPHATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Sorghum (grain & forage)	1.0	0.5	3 days.
Spinach	1.0	0.5	4 days.
		1.0	7 days.
Squash			
Summer	0.25	0.5	1 day.
Winter		0.5	14 days.
Strawberries	1.0	1.0	1 day.
Tomatoes	0.25	0.5	1 day.
Greenhouse	0.25	0.1 lbs./ 50,000 cu.ft.	1 day.
Turnips (roots & tops)	0.25 on turnips 1.0 on tops	0.5	3 days.
Walnuts	0.25 (edible portions)	2.5	1 day.
Watermelons	0.5	0.5	1 day.
Wheat		0.5	14 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CARBOPHENOTHION*

PRINCIPAL FORMULATIONS: 43.7% emulsifiable concentrate; 25% wettable powder;
3.0% and 4.0% dusts; 10% granular;
liquid concentrate containing 0.125 lbs./gal.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa	5.0 (fresh forage & hay)	1.0	Do not apply more than once between cuttings. Do not graze or cut for hay within 28 days after application.
Almonds	10.0 (on hulls)	2.5 + 160.0 lbs. of oil in water	Do not apply within 7 days of harvest if hulls are to be used as feed.
		1.8 (dust)	Do not apply within 7 days of harvest if hulls are to be used as feed.
		5.0	Apply 2 weeks after petal fall. Do not feed treated hulls to livestock.
Apples	0.8	1.25	30 days.
		4.5	Delayed dormant spray.
Apricots	0.8	2.0 + 128.0 lbs. of oil in water	30 days.
Beans (dry)	0.8 (beans) 5.0 (vines)	3.5	Use only on beans to be marketed as shelled dry beans. Do not feed treated vines or hulls to livestock.
		0.6 (dust)	Do not apply more than twice per season.
		0.5 (spray)	Do not graze or cut vines for hay within 21 days after application.
Beans (succulent)	0.8 (beans)	0.75 (spray) 1.2 (dust)	7 days. Do not feed treated forage to livestock.
Snap	5.0		
Lima	(vines)	0.6 (dust)	Do not apply within 7 days of harvest.
		0.5 (spray)	Do not apply more than twice per season. Do not graze or cut vines for hay within 21 days after application.

*O,O-diethyl S-p-chlorophenylthiomethyl phosphorodithioate
Proprietary name: "Trithion"

CARBOPHENOTHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Beets	0.8 (on tops & roots)	0.5 (spray) 1.2 (dust)	21 days if tops are to be used as food or feed.
Blackberries		1.0	Post-harvest application only.
Cantaloupes	0.8	1.0 (spray) 1.2 (dust)	5 days.
Cherries	0.8	1.8 (dust)	30 days.
		2.0 + 128.0 lbs. of oil in water	30 days.
Citrus:			
Grapefruit	2	5.0 + 160	30 days.
Lemons	(fruit)	lbs. of oil	
Limes		in water	
Oranges	10	2.5	No time limitations. Allow 30 days between applications.
Tangelos	(dehy- drated		
Tangerines	pulp & meal)	3.75	14 days. Allow 30 days between applications.
Clover	5.0 (fresh forage & hay)	1.0	Do not apply more than once between cuttings. Do not graze or cut for hay within 28 days after application.
Corn	2.0 (kernels & cobs with husks removed)	1.0	Do not apply more than once per season. Do not graze or cut for forage within 21 days after application.
	5.0 (forage)		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2-CHLORO-1-(2,4-DICHLOROPHENYL) VINYL DIETHYL PHOSPHATE

PRINCIPAL FORMULATIONS: 10% granular; 21.1% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Corn Field		lbs. actual/A.	
		2.0	Soil application to furrow at time of planting.
		1.0	Band soil application at time of last cultivation.
Agricultural Premises:			
Barns		0.5% (in water)	Apply to interior surfaces at the rate of one gallon per five hundred to 1000 sq. ft.
Poultry houses		0.32% (in water)	Apply to poultry droppings at the rate of one gallon per twenty-five square feet.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CHLOROBENZILATE*

PRINCIPAL FORMULATIONS: 25% emulsifiable concentrate; 25% wettable powder;
4% dust; 10% pressurized spray

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		3.0	Do not apply after husks split or within 21 days of harvest. Do not feed treated hulls to livestock.
Apples	5	5.0	14 days.
Cantaloupes	5	1.6	No time limitations.
Cherries		4.0	Post-harvest application only.
Citrus Fruits (all)	5	3.75	No time limitations.
Cotton		1.0	Do not apply after bolls open. Do not graze livestock in treated fields. Do not feed gin waste to livestock.
Lemons	5	7.5	No time limitations.
Melons	5	1.0	No time limitations.
Oranges	5	5.0	No time limitations.
Peaches		1.5	30 days.
Pears	5	5.0	7 days.
Walnuts		5.0	Do not apply after husks begin to split.

*Ethyl 4,4'-dichlorobenzilate

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2-CHLORO-4,6-BIS (ISOPROPYLAMINO)-s-TRIAZINE*

PRINCIPAL FORMULATIONS: 80% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sorghum (Milo, Sweet)		lbs. actual/A. 4.0	Preemergence application at time of planting or immediately after. Do not plant treated fields to any crop other than sorghum within 18 months after treatment. Do not apply to sandy soil.

*Proprietary name: "Propazine"
Issued: 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

(3-CHLORO-2-METHYL-p-VALEROTOLUIDIDE) 2-METHYLPANTANAMIDE

PRINCIPAL FORMULATIONS: 46% emulsion concentrate containing 4 lbs./gal.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes		lbs. actual/A. 4.0	Preemergence application 2-3 days before crop emerges. or 30 days postemergence application when crop is 6 or more inches tall. or 30 days posttransplanting application 2 or more weeks after setting.

Coined common name: "Solan"
Issued: 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

1-CHLORO-2-NITROPROPANE

PRINCIPAL FORMULATIONS: 44.55% emulsifiable concentrate containing 4 lbs./gal.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Beets (table)		1.0	Pacific Northwest only. In furrow on 24 inch row spacing at planting time.
Cotton		2.0	Soil application at time of planting.
Cucumbers		1.0	California only. In furrow on 60 inch spacing at planting time.
Melons		1.0	California only. In furrow on 60 inch spacing at planting time.
Peas		4.0	Pacific Northwest only. In furrow on 7 inch row spacing at planting time.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

3-[p-(p-CHLOROPHENOXY)-PHENYL]-1,1-DIMETHYLUREA*

PRINCIPAL FORMULATIONS: 50% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Soybeans		lbs. actual/A. 4.0	Preemergence application at planting time. or Postemergence application as directed spray from seedling to layby. Do not graze livestock on treated fields. Do not apply within 90 days of harvest as a forage crop.

*Proprietary name: Tenoran

154a

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CITRIC ACID

PRINCIPAL FORMULATIONS: 2% liquid with other fungistatic ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Hay	Safe Chemical	lbs. act./ton 0.04	Postharvest application. Used only in combination with other fungistats.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER (Ammoniacal)

PRINCIPAL FORMULATIONS: 3.25% liquid: 10% soluble paste

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples		0.4	No time limitations.
Beans		0.47	No time limitations.
Cantaloupes		0.4	No time limitations.
Carrots		0.4	No time limitations.
Celery		0.2	No time limitations.
Citrus		0.4	No time limitations.
Cucumbers		0.6	No time limitations.
Currants		0.3	No time limitations.
Gooseberries		0.4	No time limitations.
Grapes		0.3	No time limitations.
Melons		0.4	No time limitations.
Peaches		0.4	No time limitations.
Peanuts		0.47	No time limitations.
Pears		0.4	No time limitations.
Peas		0.3	No time limitations.
Potatoes		0.3	No time limitations.
Quinces		0.4	No time limitations.
Squash		0.4	No time limitations.
Sugarbeets		0.3	No time limitations.
Tomatoes		0.47	No time limitations.

COPPER ARSENATE

PRINCIPAL FORMULATIONS: Customarily marketed as 91% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as combined As ₂ O ₃)	lbs. actual/A.	
Almonds		32.0	Do not apply after petal fall.
Apricots		64.0	Do not apply after petal fall.
Beans (dried)		15.0	No time limitations.
Beans (green or snap)		15.0	Do not apply after edible parts start to form. Do not feed any treated plant parts to livestock.
Broccoli		8.0	Do not apply after edible parts start to form.
Brussel sprouts	3.5	8.0	Do not apply after edible parts start to form.
Cabbage	3.5	8.0	Do not apply after edible parts start to form.
Carrots	3.5	8.0	No time limitations.
Cauliflower	3.5	8.0	Do not apply after curd starts to form.
Celery		9.0	No time limitations.
Cucumbers		7.3	No time limitations.
Cucurbits		7.0	No time limitations.
Grapefruit		4.6	Apply 1-3 weeks after bloom. Treatment may be repeated in summer scalicide sprays.
Kohlrabi	3.5	8.0	Do not apply after edible parts start to form.
Pears		18.0	Do not apply after petal fall.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER ARSENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as combined As ₂ O ₃)	lbs. actual/A.	
Potatoes (foliage)		25.0	No time limitations.
Tomatoes	3.5	15.0	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER - BASIC COPPER SULFATE AND CHLORIDES (COPPER OXYCHLORIDE SULFATE)

PRINCIPAL FORMULATIONS: 3,5,6,7,10, 13 and 15% copper (as metallic) dusts; 5,6,18,26.5, 31,34,50,53,55 and 56% copper (as metallic) wettable powders; 3.3 and 3.96% copper (as metallic) liquid emulsions

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. metallic copper equiv./A.	
Almonds	Exempt	16.0	Preblossom to petal fall.
Apples	Exempt	3.5	No time limitations.
Apricots	Exempt	16.0	Preblossom to petal fall.
Beans	Exempt	2.4	No time limitations.
Beets (table)	Exempt	3.5	No time limitations.
Blackberries	Exempt	3.1	No time limitations.
Broccoli	Exempt	2.0	No time limitations.
Brussels sprouts	Exempt	2.0	No time limitations.
Cabbage	Exempt	2.0	No time limitations.
Cantaloupe	Exempt	4.4	No time limitations.
Carrot	Exempt	5.0	No time limitations.
Cauliflower	Exempt	2.0	No time limitations.
Celery	Exempt	6.6	No time limitations.
Cherries	Exempt	13.25 8.3	Popcorn to petal fall. Cover sprays.
Citrus:			
Grapefruit	Exempt	20.0	Do not apply after fruit is 3/4" in diameter, in areas where copper injury is known to occur or where fumigation with HCN gas is practiced.
Kumquats	Exempt		
Lemons	Exempt		
Limes	Exempt		
Oranges	Exempt		
Tangerines	Exempt		
Tangeloes	Exempt		
Cucurbits	Exempt	4.4	No time limitations.
Currants	Exempt	3.5	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER - BASIC COPPER SULFATE AND CHLORIDES
(COPPER OXYCHLORIDE SULFATE)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. metallic copper equiv./A.	
Eggplants	Exempt	3.5	No time limitations.
Filberts	Exempt	3.0	No time limitations.
Grapes	Exempt	3.5	No time limitations.
Hops	Exempt	2.3	No time limitations.
Lettuce	Exempt	3.5	No time limitations.
Melons	Exempt	4.4	No time limitations.
Nectarines	Exempt	13.75	Prebloom to petal fall.
Onions	Exempt	3.5	No time limitations.
Peaches	Exempt	10.0	Preblossom to petal fall.
Pears	Exempt	3.0	Petal fall. Do not apply to Anjou or Comice varieties.
Peppers	Exempt	7.0	No time limitations.
Plums	Exempt	2.2	Petal fall.
Potatoes	Exempt	5.5	No time limitations.
Raspberries	Exempt	3.1	No time limitations.
Spinach	Exempt	3.5	No time limitations.
Squash	Exempt	2.5	No time limitations.
Strawberries	Exempt	3.5	No time limitations.
Sugar Beets	Exempt	4.4	No time limitations.
Tomatoes	Exempt	6.6	No time limitations.
Vegetable Plant Beds	Exempt	5.5	Before transplanting.
Walnuts	Exempt	25.0	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER CARBONATE

PRINCIPAL FORMULATIONS: 6,12,49,51% copper (as metallic) wettable powders;
20,50 and 55% copper (as metallic) dusts;
1.3% copper (as metallic) impregnated wraps

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. metallic copper equiv./A.	
Apples	Exempt	2.4	Full bloom to late bloom stage.
Apricots	Exempt	13.0	Dormant to full bloom.
Cherries	Exempt	26.0	Popcorn to petal fall.
Citrus:			
Grapefruit	Exempt	12.8	Late fall application.
Kumquats	Exempt		
Lemons	Exempt		
Limes	Exempt		
Oranges	Exempt		
Tangerines	Exempt		
Tangeloes	Exempt		
Nectarines	Exempt	13.0	Dormant application.
Olives	Exempt	16.3	Late fall application.
Peaches	Exempt	13.0	Dormant application.
Pears	3 (combined copper)	1.3% impregnated wraps	Postharvest use of one 9" x 9" impregnated wrap per fruit.
Sorghum	Exempt	0.8 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.
Walnuts	Exempt	15.3	Prebloom and bloom stage.
Wheat	Exempt	0.8 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER CHLORIDE

PRINCIPAL FORMULATIONS: 5% solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Potatoes		2.0	No time limitations.
Tomatoes		2.5	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER HYDROXIDE

PRINCIPAL FORMULATIONS: 86% and 92% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. metallic copper equiv./A	
Bananas	Exempt	1.8	No time limitations.
Celery	Exempt	2.8	No time limitations.
Cucumbers	Exempt	1.12	No time limitations.
Potatoes	Exempt	2.24	No time limitations.
Sugar beets	Exempt	2.8	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER LIME MIXTURES
(Copper Sulfate, Monohydrate)

PRINCIPAL FORMULATIONS: 10% and 20% metallic copper equivalent

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. metallic copper equiv/A.	
Almonds	Exempt	10.0	No time limitations.
Apples	Exempt	5.0	No time limitations.
Apricots	Exempt	10.0	No time limitations.
Blueberries	Exempt	0.6	No time limitations.
Broccoli	Exempt	8.0	No time limitations.
Cabbage	Exempt	8.0	No time limitations.
Carrots	Exempt	8.0	No time limitations.
Cauliflower	Exempt	8.0	No time limitations.
Celery	Exempt	8.0	No time limitations.
Cherries	Exempt	10.0	No time limitations.
Cucurbits	Exempt	7.0	No time limitations.
Nectarines	Exempt	10.0	No time limitations.
Peaches	Exempt	10.0	No time limitations.
Pears	Exempt	10.0	No time limitations.
Peppers	Exempt	8.0	No time limitations.
Potatoes	Exempt	7.0	No time limitations.
Strawberries	Exempt	8.0	No time limitations.
Tomatoes	Exempt	8.0	No time limitations.
Walnuts	Exempt	10.0	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER OXYCHLORIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Vegetables: (cont.)			
Squash (summer)	Exempt	3.0	No time limitations.
Squash (winter)	Exempt		
Sweet potatoes	Exempt		
Swiss chard	Exempt		
Tomatoes	Exempt		
Turnips	Exempt		
Watermelons	Exempt		
Spinach	Exempt	3.5	No time limitations.

NAME		ADDRESS		CITY		STATE		ZIP	

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER RESINATE (20%) PLUS PHENYL MERCURY SALICYLATE (2%)

PRINCIPAL FORMULATIONS: Mixture of technical materials with inert diluents

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Wheat		0.5 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER SALTS OF FATTY AND ROSIN ACIDS

PRINCIPAL FORMULATIONS: 48% liquid containing 4% copper. A mixture of copper oleate, copper linoleate, and copper abietate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cantaloupes	Exempt	1/2 gal./A.	No time limitations.
Carrots	Exempt	3 qts./A.	No time limitations. North Central states only.
Citrus (all)	Exempt	2 gals./A.	Aircraft application 3 weeks after petal fall.
		10 gals./A.	Ground equipment application 3 weeks after petal fall.
Cucumbers	Exempt	1/2 gal./A.	No time limitations.
Peanuts	Exempt	1 gal./A.	No time limitations.
Peppers	Exempt	3 qts./A.	No time limitations. North Central states only.
Pumpkins	Exempt	1/2 gal./A.	No time limitation.
Squash	Exempt	1/2 gal./A.	No time limitation.
Sugarbeets	Exempt	3 qts./A.	No time limitation.
Tomatoes (greenhouse)	Exempt	1 oz. of 20% aerosol/ 3000 cu.ft.	Fog application. No time limitations.
Watermelon	Exempt	1/2 gal./A.	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER SULFATE (Basic)

PRINCIPAL FORMULATIONS: 6,6.5,7,8,26 and 52% metallic copper equivalent dusts; 12.75,13,19,26,34,35,38,47.7,52 and 53% metallic copper equivalent wettable powders; 30% metallic copper equivalent liquid concentrate; 32% metallic copper equivalent emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. metallic copper equiv/A.	
Almonds	Exempt	21.5	Prebloom stages.
Apples	Exempt	17.0	No time limitations.
Apricots	Exempt	21.3	Red bud or prebloom stages.
		2.6	No time limitations.
Avocados	Exempt	19.0	140 days after bloom.
Beans	Exempt	4.0	No time limitations.
Beets	Exempt	3.6	No time limitations.
Blueberries	Exempt	1.4	No time limitations.
Brambles	Exempt	2.6	No time limitations.
Broccoli	Exempt	3.5	No time limitations.
Brussels sprouts	Exempt	3.5	No time limitations.
Cabbage	Exempt	3.5	No time limitations.
Carrots	Exempt	3.5	No time limitations.
Cauliflower	Exempt	3.5	No time limitations.
Celery	Exempt	5.2	No time limitations.
Cherries	Exempt	26.5	No time limitations.
Citrus:	Exempt	32.0	No time limitations.
Grapefruit			
Kumquats			
Lemons			
Limes			
Oranges			
Tangerines			
Tangeloes			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER SULFATE (Basic)

USE	TOLERANCE (ppm)	DOSAGE lbs. metallic copper equiv./A.	LIMITATIONS
Cranberries	Exempt	1.4	No time limitations.
Cucurbits	Exempt	5.3	No time limitations.
Currants	Exempt	2.6	No time limitations.
Eggplant	Exempt	3.5	No time limitations.
Gooseberries	Exempt	2.6	No time limitations.
Grapes	Exempt	4.0	No time limitations.
Hops	Exempt	2.0	No time limitations.
Lettuce	Exempt	2.4	No time limitations.
Melons	Exempt	5.3	No time limitations.
Mint	Exempt	2.8	No time limitations.
Nectarines	Exempt	15.9	Dormant to full pink.
Onions	Exempt	3.5	No time limitations.
Papayas	Exempt	3.8	No time limitations.
Peaches	Exempt	15.9	Dormant to full pink.
		2.6	No time limitations.
Peanuts	Exempt	2.1	No time limitations.
Pears	Exempt	3.5	No time limitations.
Peas	Exempt	3.2	No time limitations.
Pecans	Exempt	10.0	No time limitations.
Peppers	Exempt	3.7	No time limitations.
Plums	Exempt	13.3	Green bud and popcorn stages.
		2.6	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER SULFATE (Basic)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. metallic copper equiv./A.	
Potatoes	Exempt	6.6	No time limitations.
Prunes	Exempt	13.3	Green bud and popcorn stages.
		2.6	No time limitations.
Radishes	Exempt	1.5	No time limitations.
Spinach	Exempt	3.2	No time limitations.
Strawberries	Exempt	4.0	No time limitations.
Sugar beets	Exempt	4.2	No time limitations.
Tomatoes	Exempt	6.6	No time limitations.
Vegetable seedlings	Exempt	4.2	Plant bed soil treatment.
Walnuts	Exempt	26.8	No time limitations.
Wheat	Exempt	2.1 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER SULFATE (Pentahydrate)

PRINCIPAL FORMULATIONS: 50% wettable powder; 99% crystals

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Bananas	Exempt	25.0	No time limitations.
Cranberries	Exempt	20.0	Apply between August 1-10 in 400 gals. water per acre. Berries may be speckled by treatment.
Tomatoes	Exempt	25.0	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER-TETRA COPPER CALCIUM OXYCHLORIDE

PRINCIPAL FORMULATIONS: 3%, 6%, 6.5%, 7%, 7.25%, 10% and 45% copper, metallic equivalent

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. metallic copper equiv./A.	
Almonds	Exempt	15.0	Dormant through bloom.
Apples	Exempt	6.5	No time limitations.
Apricots	Exempt	11.3	Dormant through bloom.
Beans	Exempt	2.5	No time limitations.
Beets	Exempt	2.5	No time limitations.
Carrots	Exempt	2.5	No time limitations.
Celery	Exempt	4.5	No time limitations.
Cherries	Exempt	9.0	No time limitations.
Cucurbits	Exempt	3.5	No time limitations.
Eggplant	Exempt	3.3	No time limitations.
Grapes	Exempt	2.5	No time limitations.
Melons	Exempt	2.5	No time limitations.
Peaches	Exempt	11.3	Dormant through bloom.
Pears	Exempt	3.0	No time limitations.
Peppers	Exempt	2.5	No time limitations.
Plums	Exempt	11.3	Dormant through bloom.
Potatoes	Exempt	5.7	No time limitations.
Prunes	Exempt	11.3	Dormant through bloom.
Strawberries	Exempt	2.5	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER-TETRA COPPER CALCIUM OXYCHLORIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. metallic copper equiv./A.	
Sugar beets	Exempt	3.5	No time limitations.
Tomatoes	Exempt	4.5	No time limitations.
Walnuts	Exempt	11.3	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER-ZINC CHROMATE COMPLEX

PRINCIPAL FORMULATIONS: 20.0%, 35.6%, 47.5%, 89.0% and 95.0% wettable powders
3.0%, 5.7%, 6.0% and 8.0% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Avocados	Exempt	19.0	No time limitations.
Beets (table)	Exempt	2.0	No time limitations.
Cantaloupes	Exempt	3.0	No time limitations.
Carrots	Exempt	3.0	No time limitations.
Celery	Exempt	3.0	No time limitations.
Citrus:			
Grapefruit	Exempt	9.5	No time limitations.
Kumquat	Exempt		
Lemons	Exempt		
Limes	Exempt		
Oranges	Exempt		
Tangerines	Exempt		
Tangeloes	Exempt		
Cucumbers	Exempt	3.0	No time limitations.
Cucurbits	Exempt	3.0	No time limitations.
Grapes	Exempt	1.9	No time limitations.
Melons	Exempt	3.0	No time limitations.
Peanuts	Exempt	1.9	No time limitations.
Peppers	Exempt	3.8	No time limitations.
Potatoes	Exempt	3.78	No time limitations.
Squash	Exempt	3.0	No time limitations.
Strawberries	Exempt	1.8	No time limitations.
Sugar beets	Exempt	3.0	No time limitations.
Tomatoes	Exempt	6.8	No time limitations.

CUPROUS OXIDE

PRINCIPAL FORMULATIONS: 3.5, 4, 4.4, 4.5, 6.4, 7, 7.2, 10 and 30% metallic copper dusts; 52.5, 70, 75 and 80% metallic copper wettable powders; 60 and 65% metallic copper liquid concentrates; 65.4% metallic copper emulsion concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. metallic copper equiv./A.	
Bananas	Exempt	2.6	No time limitations.
Beans	Exempt	3.1	No time limitations.
Beets	Exempt	2.5	No time limitations.
Broccoli	Exempt	4.1	No time limitations.
Brussels sprouts	Exempt	4.1	No time limitations.
Cabbage	Exempt	4.1	No time limitations.
Cantaloupes	Exempt	5.7	No time limitations.
Carrots	Exempt	2.5	No time limitations.
Cauliflower	Exempt	4.1	No time limitations.
Celery	Exempt	4.3	No time limitations.
Cherries	Exempt	4.5	No time limitations.
Citrus	Exempt	14.0	No time limitations.
Coffee	Exempt	1.25 lbs./100 gals.	No time limitations.
Collards	Exempt	4.1	No time limitations.
Cucumbers	Exempt	5.7	No time limitations.
Eggplant	Exempt	3.5	No time limitations.
Grapes	Exempt	6.0	No time limitations.
Hops	Exempt	2.6	No time limitations.
Male	Exempt	4.1	No time limitations.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. metallic copper equiv./A	
Kohlrabi	Exempt	4.1	No time limitations.
Melons	Exempt	5.7	No time limitations.
Mustard	Exempt	5.7	No time limitations.
Onions	Exempt	3.2	No time limitations.
Peaches	Exempt	4.5	No time limitations.
Peanuts	Exempt	2.0	No time limitations.
Peas	Exempt	3.0 oz./100 lbs. seed	Seed treatment only. Do not use treated seed for food or feed.
Peppers	Exempt	5.6	No time limitations.
Potatoes	Exempt	6.4	No time limitations.
Pumpkins	Exempt	5.7	No time limitations.
Spinach	Exempt	3.0	No time limitations.
Squash	Exempt	5.7	No time limitations.
Strawberries	Exempt	3.2	No time limitations.
Sugar beets	Exempt	4.5	No time limitations.
Tomatoes	Exempt	6.4	No time limitations.
Turnips	Exempt	4.1	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CYANAMIDE

PRINCIPAL FORMULATIONS: 46% and 60% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A. 5.0	Preharvest defoliation. Apply when 50% or more of bolls are open and 10-14 days before harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CYANO (METHYLMERCURI) GUANIDINE

PRINCIPAL FORMULATIONS: 0.6%, 2.2%, 3.7% and 6.3% liquids

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz. actual	
Apples		3.3/acre	Apply delayed dormant to petal fall.
Beans		0.099/100 lbs.	Seed treatment, including planter box. Do not use treated seed for food, feed, or oil.
Corn (field & sweet)		0.099/100 lbs.	Seed treatment, including planter box. Do not use treated seed for food, feed, or oil.
Cottonseed		0.25/acre	Soil and seed treatment in furrow at time of planting.
Acid delinted		0.088/100 lbs.	Seed or planter box treatment. Do not use treated seed for food, feed, or oil.
Machine delinted		0.088/100 lbs.	Seed or planter box treatment. Do not use treated seed for food, feed, or oil.
Fuzzy		0.130/100 lbs.	Seed or planter box treatment. Do not use treated seed for food, feed, or oil.
Flax		0.037/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Grain: Barley Oats Rye Sorghum Wheat		0.018/bu.	Seed or planter box treatment. Do not use treated seed for food, feed, or oil.
Peanuts		0.055/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Peas		0.099/100 lbs.	Seed treatment, including planter box. Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CYANO (METHYLMERCURI) GUANIDINE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Rice		oz. actual 0.018/bu.	Seed treatment, including planter box. Do not use treated seed for food, feed, or oil.
Safflower		0.049/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Soybeans		0.099/100 lbs.	Seed treatment, including planter box. Do not use treated seed for food, feed, or oil.
Vegetable Plantbeds		0.024/35	Apply 1 1/2-2 pts. per sq. ft. as a preemergence soil drench and only when seedlings are to be transplanted to untreated soil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DALAPON*

PRINCIPAL FORMULATIONS: 85% wettable powder, as sodium salt
85% soluble powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		1.1	Apply to seedling crop underseeded in flax when flax is 1-6 in. high.
		2.2	Apply 4 weeks after seedling or when plants are 2-3 inches tall. Do not feed first year's growth to dairy animals or animals being finished for slaughter.
		6.0	Preplanting spring soil application. Follow by plowing 4 days later. Plant crop 4-5 weeks after plowing.
Apples	3	11.1	Apply 1 or 2 sprays when grass is 6-10 inches tall and after trees are at least 4 years old. Do not graze livestock on treated areas.
Apricots	1	11.1	Spray area within 3 ft. radius of tree trunk. Do not apply more than twice in any one season. Do not graze livestock on treated areas.
Asparagus	30	14.8	Apply as single application either before or after cutting season, or as split application with the first application before cutting or repeat 3-4 weeks later. During cutting season, apply immediately after cuttings. Later sprays should be directed under fern growth.
Bananas	5	11.1	Apply before grass heading stage; repeat at 4-6 week intervals. Do not apply more than 22.2 lbs. acid equivalent per year. Do not contaminate fruit, foliage, or young banana plants.

*2,2-dichloropropionic acid

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DALAPON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cranberries (contd.)	5	14.8	Ditch and shore treatments. Apply twice during June and July. Do not contaminate crop.
		7.4	Spray treatment. Apply in fall after cranberry harvest.
Cropland		22.2	Preplant fall soil application. Apply in fall and follow by spring plowing. Plant crops 4 weeks after plowing.
Flax	75 (flax- seed)	1.1	Apply when flax is 1-6 in. tall. May be used in flax underseeded to alfalfa, birdsfoot trefoil and sweet clover.
Grapes	3	14.8	Directed spray under grape trellis when grasses are actively growing. Repeat at 1/2 rate (7.4 lbs./acre) when grass reappears. Direct spray away from grape foliage.
Grass		7.4	Preplant spring soil application. Apply in spring and follow by plowing. Plant crops 5-6 weeks after plowing.
Macadamia nuts		9.0	Apply to ground cover under trees, before harvest and only after gleaning nuts during harvest. Do not apply directly to nuts. Do not apply more than 18 lbs./A./year.
Oats		7.4	Preplant spring soil application. Apply in spring and follow by plowing. Plant crops 5-6 weeks after plowing.
Pasture		7.4	Preplant application in spring or fall followed by plowing. Plant grass seeds 6 or more weeks after treatment.
Peaches	15	11.1	Spray area within 3 ft. radius of tree trunk. Do not apply more than three times in any one season. Do not graze livestock on treated areas. Do not apply within 30 days of harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DALAPON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Pears	3	11.1	Apply 1 or 2 sprays when grass is 6-10 inches tall and after trees are at least 4 years old. Do not graze livestock on treated areas.
Peas	15 (peas & forage)	0.74	Apply after peas are 2-6 in. tall and have 4-6 nodes. Do not apply within 25 days of harvest. Do not feed treated pea vine hay to livestock.
Pineapple	3	7.4	Spot treatment. 1-6 month preharvest. Keep spray off pineapple foliage.
Plums	1	11.1	Spray area within 3 ft. radius of tree trunk. Do not apply more than twice in any one season. Do not graze livestock on treated areas.
Potatoes	10	11.1	Preplanting fall application in Sept.- or Oct. Follow by plowing 10-20 days later or delay until following spring. Plant crop in spring.
		7.4	Preemergence application. May be used in combination with DMBP amine.
		6.0	Preplanting spring application. Follow by plowing 4 days later. Plant crop immediately after plowing.
		3.7	Postemergence application after last cultivation as a directed spray. Use vine lifters. Do not apply to white rose or red skinned varieties.
Prunes	1	11.1	Spray area within 3 ft. radius of tree trunk. Do not apply more than twice in any one season. Do not graze livestock on treated areas.
Sorghum		7.4	Preplanting application when Johnson grass is 8-12 inches tall, followed by plowing 3 days later. Disc soil and plant sorghum 18 days after plowing.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Soybeans		7.4	Preplanting application when Johnson grass is 8-12 inches tall, followed by plowing 3 days later. Disc soil and plant soybeans 18 days after plowing.
Sugar beets	5 (roots & tops)	3.0	Postemergence application as an overall spray from emergence to six-leaf stage.
		3.7	Postemergence application as a directed spray when beets are in seven-leaf stage to 14 inches tall. Use leaf lifting equipment to avoid wetting leaves. Do not apply more than 6 lbs. acid equivalent per acre per season.
		6.0	Postemergence application as a directed spray from emergence to six-leaf stage. Avoid spraying beet leaves.
Sugar cane		7.4	Preemergence or directed postemergence application. Do not spray cane plants.
Sweet clover		1.1	Apply to seedling crop underseeded in flax when flax is 1-6 in. high.
Wheat		7.4	Preplanting soil application in spring followed by plowing. Plant crop 5-6 weeks later.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT*

PRINCIPAL FORMULATIONS: 50% wettable powder; 25% emulsifiable concentrate;
5% dust; 10% aerosols

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter. Do not apply to forage to be sold commercially or shipped interstate.
Almonds		8.0	Do not use treated hulls for food or feed.
Apples	7	18.0	30 days.
Apricots	7	12.0	42 days.
		16.0	42 days. Applied to trunks, crotches, and lower limbs.
Artichokes	7	2.5	Do not apply after edible parts start to form.
Asparagus	7	3.0	Do not apply during cutting season.
Avocado	7	12.0	30 days.
Barley		10.0	Do not apply after heads start to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Barley (seed)		2.0 oz./bu.	Do not use as food or feed.
Beans	7	6.0	7 days for green or snap beans. No limitation on dry beans. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Beans (seed)		2.0 oz./bu.	Do not use as food or feed.
Beets	7	6.0	Do not use treated tops for food or feed.
Blackberries	7	2.0	Do not apply after fruit starts to form.

*Dichloro diphenyl trichloroethane

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Blackeyed Peas	7	6.0	7 days if pods are to be eaten. No limitation on shelled or dry peas. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Blackeyed Peas (seed)		2.0 oz./bu.	Do not use as food or feed.
Blueberries	7	2.5	Apply only before fruit starts to form or after harvest.
		2.0	21 days.
Boysenberries		2.0	Do not apply after fruit starts to form.
Broccoli	7	4.0	Do not apply after edible parts start to form.
Brussels Sprouts	7	4.0	Do not apply after edible parts start to form.
Bush & Vine Fruits:			
Blackberries	7	50.0	Single soil application when no fruit is present.
Blueberries	7		
Boysenberries	7		
Cranberries	7	0.5	Wet or dry bait formulation.
Currants	7		
Dewberries	7		
Gooseberries	7		
Grapes	7		
Huckleberries	7		
Loganberries	7		
Raspberries	7		
Strawberries	7		
Youngberries	7		
Cabbage	7	6.0	14 days if outer leaves are to be stripped at harvest, otherwise, do not apply after heads start to form.
Carrots	7	6.0	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cauliflower	7	6.0	Do not apply after edible parts start to form.
Celery	7	6.0	Do not apply after plants begin to bunch or after plants are half grown.
Cherries	7	12.0	30 days.
		16.0	Applied to trunks, crotches and lower limbs. 42 days.
Chestnuts		24.0	Do not apply after shucks begin to split.
Citrus:			
Grapefruit	7	50.0	Single soil application when no fruit is present.
Kumquats	7		
Lemons	7		
Limes	7	0.5	Wet or dry bait formulations.
Oranges	7		
Tangerines	7		
Tangeloes	7		
Clover		10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter. Do not apply to forage to be sold commercially or shipped interstate.
Collards	7	2.5	Do not apply after seedling stage. 21 days on greens for processing.
Corn			
Field	3.5 on	10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter. No restriction on use of grain as food or feed.
Pop	kernels		
Sweet	and cob		
	(sweet	3.0	Do not feed treated forage to dairy animals. Do not ensile treated corn. Do not feed stover from sweet corn receiving 3 applications, or feed field corn forage receiving late applications.
	corn		
	only)		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Lettuce (cont.)	7	2.0	7 days if outer leaves are stripped at harvest, otherwise make no application to head lettuce after the heads have started to form.
Lettuce (greenhouse)	7	4.0	Do not apply after heads or edible parts start to form. Do not apply after seedling stage on leaf lettuce.
		0.15 lbs./ 50,000 cu. ft.	Aerosol formulation. Do not apply after heads or edible parts start to form. Do not apply after seedling stage on leaf lettuce.
Lima Beans	7	7.0	7 days. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Limes	7	40.0	30 days. Full coverage spray.
Loganberries	7	2.0	Do not apply after edible parts start to form.
Mango	7	12.0	30 days.
Melons	7	12.0	5 days.
		1.5	No limitations.
Milo		10.0	Do not apply after heads start to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Milo (seed)		2.0 oz./bu.	Do not use as food or feed.
Mint			
Peppermint Spearment	100 (mint oil)	3.0	14 days. Do not feed mint hay or spent mint hay to livestock.
	50 (mint hay)		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Mustard greens	7	2.5	Do not apply after seedling stage. (21 days on greens grown for processing.)
Nectarines	7	12.0	30 days.
Oats		10.0	Do not apply after heads start to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Oats (seed)		2.0 oz./bu.	Do not use as food or feed.
Okra	7	2.5	7 days.
		6.0	No application after pods start to form.
Olives		1.0%	Postharvest application to stubs before and after waxing.
		16.5	Postharvest application to trees (with 44 gals. kerosene or light to medium summer oil in full coverage water spray).
Onions	7	4.0	Do not apply to green or spring onions.
Oranges	7	40.0	30 days. Full coverage spray.
Papayas	7	8.0	30 days.
Parsnips	7	2.5	Do not use treated tops for food or feed.
Parsley		4.0	Do not apply after seedling stage.
Pasture grass		10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Peaches	7	12.0	30 days.
		16.0	Apply to trunks, crotches and lower limbs. Do not apply within 42 days of harvest.
Peanuts	7	10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Peanuts (seed)		2.0 oz./bu.	Do not use as food or feed.
Pears	7	18.0	30 days.
Peas	7	6.0	Do not apply to varieties with edible pods after pods start to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Peas (seed)		2.0 oz./bu.	Do not use as food or feed.
Pecans		30.0	Do not apply after shucks split.
Peppers	7	6.0	5 days. Remove residues at time of harvest by washing or brushing.
Pineapples	7	50.0	Single soil application when no fruit is present.
		0.5	Wet or dry bait formulation.
		3.0	Do not feed treated pineapple skins or shells to dairy animals or animals being finished for slaughter.
Potatoes	1	6.0	Do not feed culled potatoes to dairy animals.
Plums	7	12.0	30 days.
		16.0	42 days. Applied to trunks, crotches, and lower limbs.
Prunes	7	12.0	30 days.
		16.0	42 days. Applied to trunks, crotches, and lower limbs.
Pumpkins	7	2.0	5 days.
Quince	7	18.0	30 days.
Radishes	7	2.5	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Radishes (greenhouse)	7	0.15 lbs./ 50,000 cu. ft.	Greenhouse aerosol formulation. Do not apply after seedling stage.
		4.0	Do not apply after seedling stage.
Raspberries	7	2.0	Do not apply after edible parts start to form.
Rice		10.0	Do not apply after heads start to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Rice (seed)		2.0 oz./bu.	Do not use as food or feed.
Rutabagas	7	4.0	Do not use treated tops for food or feed.
Rye		10.0	Do not apply after heads begin to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Rye (seed)		2.0 oz./bu.	Do not use as food or feed.
Safflower		2.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Small Grains (seed)		2.0 oz/bu.	Do not use as food or feed.
Sorghum		10.0	Do not apply after heads start to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Sorghum (seed)		2.0 oz./bu.	Do not use as food or feed.
Soybeans		10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Soybeans (seed)		2.0 oz./bu.	Do not use as food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (cont.)		lbs. actual/A.	
Parsnips	7	50.0	Single pre-planting soil application or at time of planting.
Peas	7		
Peppers	7		
Pimentoes			
Potatoes			
Pumpkins	7		
Radishes	7		
Rutabagas	7		
Salisfy			
Shallots			
Spinach	7		
Squash (summer)	7		
Squash (winter)	7		
Sweet Potatoes	7		
Swiss Chard	7		
Tomatoes	7		
Turnips	7		
Watermelons	7		
Vetch		10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Walnuts		8.0	No time limitations.
Wheat		10.0	Do not apply after heads begin to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Wheat (seed)		2.0 oz./bu.	Do not use as food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:		lbs. actual/A.	
Beef Cattle	7 in fat	10%	Dust. Applied thoroughly to animal. Do not apply to dairy animals.
		0.17% in water	Dip or spray. Formulated with other ingredients. Applications should not be repeated within three weeks.
		50.0% W.P.	Apply one heaping tablespoon on the back of each animal and rub into hair. Do not apply to dairy animals.
		5.0% in oil	Applied by back-rubbers. Do not apply to dairy animals.
		25.0%	Formulated with other ingredients. Applied as spot treatment to open wounds or screw-worm infestations. Do not apply to dairy animals during lactation.
Goats Sheep	7 in fat	10%	Dust. Applied thoroughly to animal. Do not apply to dairy goats.
		0.5% in water	Dip or spray. Do not apply to dairy goats.
		50.0% W.P.	Apply 1 heaping tablespoon on the back of each animal and rub into hair. Do not apply to dairy goats.
		25.0%	Formulated with other ingredients. Applied as a spot treatment to open wounds or screw-worm infestations. Do not apply to dairy goats during lactation.
Swine	7 in fat	10%	Dust. Apply thoroughly to animal.
		0.5% in oil or water	Dip or spray.
		5.0% in oil	Applied by rubbing devices.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Swine	7 in fat	lbs. actual/A. 25.0%	Formulated with other ingredients. Applied as a spot treatment to open wounds or screw-worm infestations.
Agricultural Premises including:			
Barns		6.0% in oil or water	Residual surface spray. Do not con- taminant food, feed, or drinking water. Exclude animals during treatment.
Milk rooms			
Sheep folds			
Hog pens (excluding dairy barns & poultry houses)		10.0% dust	Apply thoroughly to premises. Do not contaminate food, feed, or drinking water. Exclude animals during treatment. Do not use in milk rooms.
		6.0% in oil or water	Use as a space spray. Do not con- taminant food, drinking water or feed troughs. Exclude animals during treatment.
Mushroom Houses	7	200 mg./sq.ft.	Residual spray on interior surfaces. Do not apply when mushrooms are present.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDVP*

PRINCIPAL FORMULATIONS: Technical material; emulsifiable concentrate containing 4 lbs./gal.; 0.5% liquid; 3.0% tablets
20% resin strip

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bananas		One 20% resin strip (1" x 2.5" x 0.22" per stalk of fruit)	Attach strip to stalk inside polyethylene bag 2-3 weeks after shooting. Remove at time of harvest.
Animals:			
Beef Cattle		25 mg./animal	Sweetened bait formulation. Apply by brushing or spraying. Repeat daily for 2 weeks and as needed thereafter.
Dairy Cattle		570 mg./animal	Apply daily in oil or water as a mist spray.
		0.25% in oil	Apply by rubbing devices. Use one gallon for each 20 linear feet of burlap rubbing devices. For automatic devices, recharge reservoir as needed. Animals must rub face for face fly control.
Goats		285 mg./animal	Apply daily in oil or water as a mist spray.
Sheep			
Swine			
Chickens (in laying cages)		3.0% tablets	Place two tablets (4 grams each) in special holder under center of floor of each wire cage. Replace tablets as necessary.
Agricultural Premises:			
Animal shelters		1.0%	Dry sugar bait or syrup bait formulations. Apply to floors, window sills, fences, etc. at the rate of 0.25 lbs. per 1000 sq. ft. Do not contaminate milk, milk handling equipment, feed, or drinking water.
Barns			
Dairy barns			
Feed lots			
Milk rooms			
Milk sheds			
Pig parlors			
Poultry houses			
Stables			
Other farm buildings			

*O,O-Dimethyl-2,2-dichlorovinyl phosphate

Issued: 10-1-66

228

Replaces page issued 7-1-64

DDVP

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises:(cont.)			
Animal shelters		0.1%	Liquid bait formulation. Apply to floor and ground at the rate of 3 gals. per 1000 sq. ft. Apply in poultry houses out of reach of birds at the rate of 1/2 gal. per 100 sq. ft. Apply to garbage cans and manure piles at the rate of 3 gals. per 100 sq. ft. Do not contaminate water, feed, milk, or milking equipment.
Barns			
Dairy barns			
Feed lots			
Milk rooms			
Milk sheds			
Pig parlors			
Poultry houses			
Stables			
Other farm buildings		0.64 oz. act./ 100 sq. ft. of enclosed space	Resin strand. Loop over or staple strands to rafters. Do not contaminate feed, water, foodstuffs, milk or milking utensils.
		0.8 oz. act./ 1000 cu. ft. of enclosed space	Resin strip. Do not contaminate feed, water, foodstuffs, milk or milking utensils.
		1.0% in oil or water	Apply as a fog or mist inside building at the rate of 1 pint per 8,000 cu. ft. Do not contaminate feed, drinking water, milk, or milking equipment. Do not apply in areas where animals have received direct applications of DDVP within 8 hours.
		0.5%	Apply as a spray to all exterior and interior surfaces at the rate of one quart per 1000 sq. ft. Apply to manure piles and garbage dumps at the rate of two quarts per 100 sq. ft. Do not contaminate water, feed, milk, or milking equipment.
Cattle feed lots		0.5% in oil or water	Apply with mist blower or other suitable equipment as an overall application at the rate of 0.2 lbs. DDVP per acre. The mist spray should be directed over the entire area. Particular attention should be given to areas where flies congregate such as fences, spillage areas around feed bunks, and walls of build-
Corrals			
Holding pens			
Stockyards			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDVP

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cattle feed lots (cont.)			ings. Animals may be present during treatment. Avoid direct application to exposed feed and water.
Poultry Houses			
Poultry pens Poultry yards		2.5 lbs. of 0.5% DDVP on vermiculite carrier per 650 sq. ft.	Scatter on litter around feed troughs, dusting holes, nesting areas, and roosting areas. Repeat application after 6 days. For continued protection, repeat application every 30 days.
Special:			
Outdoor fogging		0.2% in oil	Formulated with other ingredients. Apply by fogging machines. Thoroughly treat premises.
Mushroom Houses		0.5%	Apply to interior surfaces by brushing or spraying when no mushrooms are present.
		32 grams per 16,000 cubic feet	Apply by aerosol or hot pipe method 0.9 fluid oz. of emulsion concentration every four days. Repeat if necessary. Do not apply within 1 day of harvest.
		2 grams per 1,000 cubic feet	Apply by air blast fog generators only. Do not apply within one day of harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,2-DIBROMO-3-CHLOROPROPANE + OTHER HALOGENATED C₃ COMPOUNDS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cucumbers	25	17 - 26	Preplanting, or at time of planting to mineral soils. For preplanting use wait 7-14 days before planting. No postplanting application.
Dewberries	25	26 - 86	Preplanting, at time of planting, or postplanting to mineral soils. For preplanting use wait 7-14 days before planting. Do not apply within 48 days of harvest.
Eggplants	50	17 - 26	Preplanting, at time of planting, or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting.
Endive (Escarole)	130	17 - 24	Preplanting, at time of planting, or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting.
Figs	75	61	Preplanting, at time of planting, or postplanting application to mineral soils. For preplanting use wait 4-6 weeks before planting. Do not apply within one year of harvest.
Grapes	25	34 - 86	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 4-6 weeks before planting.
Honeydew melons	50	17 - 26	Preplanting, or at time of planting application to mineral soils. For preplanting use wait 7-14 days before planting. No postplanting application.
Lettuce	130	17 - 24	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 7-14 days before planting.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,2-DIBROMO-3-CHLOROPROPANE + OTHER HALOGENATED C₃ COMPOUNDS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Loganberries	25	26 - 86	Preplanting, at time of planting or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting. Do not apply within 48 days of harvest.
Muskmelons	50	17 - 26	Preplanting, or at time of planting application to mineral soils. For preplanting use wait 7-14 days before planting. No postplanting application.
Nectarines	5	34 - 86	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 4-6 weeks before planting.
Okra	75	17 - 24	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 7-14 days before planting.
Parsnips	75	17 - 24	Preplanting, at time of planting, or postplanting to mineral soils. For preplanting use wait 7-14 days before planting. Do not feed plant parts to livestock.
Peaches	5	34 - 86	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 4-6 weeks before planting.
Peanuts	50	17 - 26	Preplanting or at planting treatment. Do not feed, sell or introduce into commerce hay or hulls taken from treated soil. Forage crops grown on treated soil should not be used as feed for dairy animals or animals being finished for slaughter until 2 years after row treatments or 3 years after overall treatments.

USDA Summary of Registered Agricultural Pesticide Chemical Uses
1,2-DIBROMO-3-CHLOROPROPANE + OTHER HALOGENATED C₃ COMPOUNDS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Peppers	50	lbs. actual/A. 13 - 26 (direct seeded)	Preplanting overall. Wait 7-14 days before planting.
		5.7 - 8.6 (direct seeded)	Preplanting, at time of planting, or postplanting row application. For preplanting use wait 7-14 days before planting.
		13 (transplants)	Preplanting overall treatment. Allow 2 weeks between treatment and planting.
Pineapples	50	34 - 138	Preplanting or at time of planting application to mineral soils. Inject into soil at 5-8 inch depth and at least 6 inches to one side of plant line. Postplant: Injected as above or applied in 0.1 acre inch of water. Do not apply within 270 days of harvest and do not exceed 138 pounds in a single year in any combination of treatments.
Radishes	75	17 - 24	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 7-14 days before planting.
Raspberries	25	26 - 86	Preplanting, at time of planting, or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting. Do not apply within 48 days of harvest.
Squash (summer)	25	17 - 26	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 7-14 days before planting.
Strawberries	10	8 - 26	Preplanting, at time of planting, or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting. Allow at least 300 days between treatment and harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,2-DIBROMO-3-CHLOROPROPANE + OTHER HALOGENATED C₃ COMPOUNDS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes	50	lbs. actual/A. 13 - 26 (direct seeded)	Preplanting overall. Wait 7-14 days before planting.
		5.7 - 8.6 (direct seeded)	Preplanting, at time of planting, or postplanting application in rows. For preplanting use wait 7-14 days before planting.
		13 (transplants)	Preplanting overall treatment. Allow at least 2 weeks between treatment and planting.
Turnips	75	17 - 24	Preplanting, at time of planting, or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting. Do not feed plant parts to livestock.
Walnuts	10	34 - 86	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 4-8 weeks before planting. Allow at least 100 days between treatment and harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

3,5-DIBROMO-4-HYDROXYBENZONITRILE*

PRINCIPAL FORMULATIONS: 33.9% emulsifiable concentrate (octanoic acid ester);
2 lbs. actual per gallon

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Barley		lbs. actual/A. 0.5	Apply in fall or spring, when grain is from 2-leaf to boot stage. Do not contaminate streams, lakes, and ponds with this material.
Wheat		0.5	Apply in fall or spring, when grain is from 2-leaf to boot stage. Do not contaminate streams, lakes, and ponds with this material.

*Proprietary name: "Bromoxynil"

Issued: 10-1-66

244a

Follows page 244

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,6-DICHLORO BENZO NITRILE*

PRINCIPAL FORMULATIONS: 4% granular; 50% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples		6.0	Apply in early spring or after clean cultivation as directed spray to orchard floor. Do not graze livestock in treated areas. Do not spray foliage or fruit of bearing trees.
Avocados		6.0	Apply in early spring or after clean cultivation as directed spray to orchard floor. Do not graze livestock in treated areas. Do not spray foliage or fruit of bearing trees.
Cherries		6.0	Apply in early spring or after clean cultivation as directed spray to orchard floor. Do not graze livestock in treated areas. Do not spray foliage or fruit of bearing trees.
Cranberries		4.0	Apply in early spring as single or split application 3-6 weeks apart. Do not apply to areas treated the previous fall. Do not apply after blooming of crop begins.
		6.0	Apply in late fall after harvest. Do not apply to areas treated the previous spring.
Mangoes		6.0	Apply in early spring or after clean cultivation as directed spray to orchard floor. Do not graze livestock in treated areas. Do not spray foliage or fruit of bearing trees.
Peaches		6.0	Apply in early spring or after clean cultivation as directed spray to orchard floor. Do not graze livestock in treated areas. Do not spray foliage or fruit of bearing trees.

*Coined common name: Dichlobenil

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,6-DICHLOROBENZO NITRILE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Pears		lbs. actual/A. 6.0	Apply in early spring or after clean cultivation as directed spray to orchard floor. Do not graze livestock in treated areas. Do not spray foliage or fruit of bearing trees.
Plums (Prunes)		6.0	Apply in early spring or after clean cultivation as directed spray to orchard floor. Do not graze livestock in treated areas. Do not spray foliage or fruit of bearing trees.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,4-DICHLORO-6-o-CHLOROANILINO-s-TRIAZINE*

PRINCIPAL FORMULATIONS: 50% wettable powder; 5% dust

USE	TOLERANCE (ppm)	DOSAGE lbs. actual/A.	LIMITATIONS
Blackberries	10	2.0	14 days.
Blueberries	10	3.0	14 days.
Cantaloupes	10	3.0	No time limitations.
Celery	10	3.0	No time limitations. Treated celery should be washed and trimmed.
Cranberries	10	3.0	14 days.
Cucumbers	10	3.0	No time limitations.
Dewberries	10	3.0	14 days.
Garlic	1	3.0	No time limitations.
Honeydew melons	10	3.0	No time limitations.
Huckleberries	10	1.5	14 days.
Loganberries	10	3.0	14 days.
Muskmelons	10	3.0	No time limitations.
Onions (dry bulb)	1	3.0	No time limitations. Do not use on green or spring onions.
Onions (green)	10	1.5 (spray) 2.0 (dust)	No time limitations. (Not recommended for use in Florida).
Potatoes	1	2.6	No time limitations. Schedule applications in accordance with local recommendations and conditions.
Pumpkins	10	3.0	No time limitations.
Raspberries	10	3.0	14 days.
Shallots	10	1.5 (spray) 2.0 (dust)	No time limitations. (Not recommended for use in Florida).

*Proprietary name: "Dyrene"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,4-DICHLORO-6-o-CHLOROANILINO-s-TRIAZINE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Squash	10	3.0	No time limitations.
Strawberries	10	3.0	5 days.
Tomatoes	10	2.6	No time limitations. Schedule applications in accordance with local recommendations and conditions.
Watermelon	10	3.0	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

3',4'-DICHLORO CYCLOPROPANE CARBOXANILIDE*

PRINCIPAL FORMULATIONS: 24.4% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Corn Field Sweet Pop		lbs. actual/A. 1.5	Postemergence application as directed spray when crop is 8" tall to layby. Do not use treated foliage or stalks for silage or feed for livestock.

*Proprietary name: Cypromid

253a

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,5-DICHLORO-3-NITRO BENZOIC ACID, SODIUM SALT*

PRINCIPAL FORMULATIONS: 21.1% liquid containing 2 lbs. of active ingredient per gallon

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Safflower (seed crop)		lbs. actual/A. 2.0	Preemergence application at time of planting or soon after. or Preplanting soil application to prepared seed bed and incorporated into top 1-2 inches of soil immediately prior to planting. Do not graze treated areas or feed treated forage to livestock. Do not use seed from treated crops for food, feed, or oil purposes.

*Dinoben

Issued: 2-10-65

254a

Follows page 254

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,6-DICHLORO-4-NITROANILINE*

PRINCIPAL FORMULATIONS: 50 & 75% wettable powder; 6% and 8% dust; 0.2% impregnated fruit wraps

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apricots	20	5.0 (spray) 3.0 (dust)	Do not apply within 1 day of harvest.
Beans Green Pole	20	3.0	West Coast area only. Do not apply within 7 days of harvest. Do not feed treated forage to livestock.
Cherries Sweet	20	10.0 (spray) 3.0 (dust)	Preharvest application and postharvest application while sorting cherries.
Cotton	0.1	2.0	Do not apply later than 14 days after first bolls open. Do not graze treated fields or feed gin waste to livestock.
Garlic	5	24.0	Soil application before seeding and spray to soil around sets.
Grapes	10	1.8 (dust)	Do not apply within 1 day of harvest.
Lettuce Leaf (greenhouse)	10	2.0	Do not apply to wilted plants or seedlings. Do not apply within 14 days of harvest.
Lettuce Head		2.0	West Coast only. Do not apply within 14 days of harvest.
Nectarines	20	5.0 (spray) 3.6 (dust)	Do not apply within 1 day of harvest.
Onions	5	24.0	Soil application before seeding or spray to soil around sets or buds.

*Proprietary name: Botran

254b

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,6-DICHLORO-4-NITROANILINE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Peaches	20	lbs. actual/A. 5.0 (spray) 3.6 (dust) 0.75 lbs. actual/100 gals. water 0.2% wrap (2000 ppm on paper)	Do not apply within 1 day of harvest. Postharvest spray or dip to peaches for freezing or canning. Do not use on peaches for fresh fruit market. Fruit wrap tissues.
Strawberries	15	1.5	No time limitations.
Sweet potatoes	10	0.75 lbs. actual/100 gals. water	Postharvest spray after sweet potatoes have been washed and while they are on conveyor or dip for 10-15 seconds.
Tomatoes (greenhouse)	5	0.75 lbs. actual/100 gals. water or 1.8 (dust)	Spray application to stems of plants. Do not drench seedlings or newly set trans- plants. No time limitations.
Tomatoes (field)	5	1.9	California only. No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

4-(2,4-DICHLOROPHENOXY) BUTYRIC ACID*

PRINCIPAL FORMULATIONS: 37.5% isooctyl ester; 33.5% butoxy ethanol ester;
23.0%, 26.3% dimethyl amine salt

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Forage Legumes:			
Alfalfa		2.0	Apply to seedling legumes when weeds are less than 3 inches high or to established legumes before flowering. Do not graze livestock on, or cut hay from treated fields within 30 days after treatment.
Alsike Clover			
Birdsfoot			
Trefoil			
Ladino Clover			
Red Clover			
White Clover			
Nurse Crops:			
Barley		2.0	Apply to seedling legumes when weeds and legumes are less than 3 inches tall and nurse crops are 1-6 inches tall. Do not graze livestock on, or cut hay from, treated fields within 30 days after treatment.
Flax			
Oats			
Wheat			
(underseeded to forage legumes)			
Peas			
Canning		1.5	Apply when peas are in 4-6 node stage (just before blooming). Do not graze or feed treated forage to livestock within 30 days after application.
Freezing			
Seed Crops			
Soybeans		0.25	Apply as an overall spray 7-10 days before bloom up to midbloom.

*4(2,4DB)

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,4-DICHLOROPHENYL BENZENE SULFONATE*

PRINCIPAL FORMULATIONS: 50% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE lbs. Actual/A.	LIMITATIONS
Almonds		4.5	Apply during pink or prepink stage or before fruit starts to form.
Apples		4.5	Apply during pink or prepink stage or before fruit starts to form.
Cherries		4.5	Apply during pink stage only.
Peaches		4.5	Apply during pink or prepink stage or before fruit starts to form.
Pears		4.5	Apply during pink or prepink stage or before fruit starts to form.
Plums		4.5	Apply during pink or prepink stage or before fruit starts to form.
Prunes		4.5	Apply during pink or prepink stage or before fruit starts to form.

*Proprietary Name: "Genite 923"

Issued: 7-1-64

263

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O-2,4-DICHLOROPHENYL O,O-DIETHYLPHOSPHOROTHIOATE*

PRINCIPAL FORMULATIONS: 75% solution; 5% and 20% granular formulations

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Beans (green and lima)		15.5	Apply immediately before planting.
Cabbage		3.0	Transplant solution in 300 gals. of water per acre or 1/4 to 1/3 pint transplant solution per plant.
Corn		112.5	Preplanting soil application only; allow at least 14 days between treating and planting. Do not treat more than once a year.
Cucumbers		112.5	Preplanting soil application only; allow at least 14 days between treating and planting. Do not treat more than once a season.
Muskmelons		15.5	Apply immediately before planting.
Onions (bulb)		2.0	Granular formulation only. Apply to furrow at time of planting. Do not use on green or spring onions.
Peppers		15.5	Apply immediately before planting.
		112.5	Preplanting soil application only; allow at least 14 days between treating and planting. Do not treat more than once a year.
Rhubarb		15.5	Apply immediately before planting.
Squash		112.5	Preplanting soil application only; allow at least 14 days between treating and planting. Do not treat more than once a year.
Strawberries		112.5	Preplanting soil application only; allow at least 14 days between treating and planting. Do not treat more than once a year.

*Proprietary name: "VC-13"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O-2,4-DICHLOROPHENYL O,O-DIETHYLPHOSPHOROTHIOATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes		lbs. actual/A. 15.5 112.5	Apply immediately before planting. Preplanting soil application only; allow at least 14 days between treating and planting. Do not treat more than once a year.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O-(2,4-DICHLOROPHENYL) O-METHYL ISOPROPYL PHOSPHORAMIDOTHIOATE

PRINCIPAL FORMULATIONS: 33% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Peanuts (seed crop)		lbs. actual/A. 7.5 (with 3.75 lbs. DNEP)	Apply at time of emergence during early cracking stage as an overall spray. Do not use seed for food, feed, or oil purposes.

Proprietary Name: Zytron
Issued: 10-1-65

265a

Follows page 265

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DICRYL*

PRINCIPAL FORMULATIONS: 19.3% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A. 3.0	Apply 7 days after cotton emerges and weeds are less than 11 days old (1/2 - 1 1/2 inches high). If split application is used, apply 2 lbs. as above and repeat with 1 lb. 4-10 days later. Do not apply after bolls form. Do not feed treated foliage to livestock.

*N-(3,4-dichlorophenyl) methacrylamide

Issued: 7-1-64

275

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIELDRIN*

PRINCIPAL FORMULATIONS: Emulsifiable concentrate containing 1.5 lbs. per gallon; 50% wettable powder; 1.5% dust; 5%, 10%, and 15% granular products; 50% and 75% wettable powders for seed treatments; fertilizer containing up to 24 lbs. of dieldrin per ton

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples	0.25	3.0	45 days. Full coverage spray or soil treatment.
		2.0	35 days. Full coverage spray or soil treatment.
Apricots	0.1	4.0	45 days. Full coverage spray. Do not graze dairy animals or animals being finished for slaughter in treated orchards.
		0.015 lbs./tree	Band treatment. Do not contaminate fruit.
Bananas	0.25 (on peel)	0.5	4 days.
	0 (in pulp)	3.0	Soil application to soil surface around trees. If liquids are used, apply as a coarse low-pressure spray. Do not contaminate foliage or fruit.
Barley (seed)		2.0 oz./bu.	Do not use for food or feed.
Beans (seed)		2.0 oz./bu.	Do not use for food or feed.
Beets	0.25	0.5	30 days.
Blackberries		1.0	Do not apply after first bloom.
Blackeyed peas (seed)		2.0 oz./bu.	Do not use as food or feed.
Blueberries		1.0	Do not apply after first bloom.
Boysenberries		1.0	Do not apply after first bloom.
Broccoli	0.25	0.5	30 days.
Brussels sprouts	0.25	0.5	30 days.

*1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo,exo-4,8-dimethanonaphthalene

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIELDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bush & Vine Fruits:		lbs. actual/A.	
Blackberries		5.0	Broadcast soil application, preplanting, or post-harvest in fall or early spring before blooming. Dosage may be doubled for peat or muck soils.
Blueberries			
Boysenberries			
Cranberries	0.1		
Currants			
Dewberries		1.0%	
Gooseberries			
Grapes	0.1		
Huckleberries			
Loganberries			
Raspberries			
Strawberries	0.1		
Youngberries			
Cabbage	0.25	0.5	21 days.
Cantaloupes	0	0.6	30 days.
Carrots	0.1	0.5	21 days.
Cauliflower	0.25	0.5	21 days.
Cherries	0.25	4.0	30 days. Full coverage spray.
		0.015 lbs./tree	Band treatment. Do not contaminate fruit.
Citrus Fruits:			
Grapefruit	0.25	0.5	30 days.
Kumquats			
Lemons	0.25	2.25	Apply to soil and trunk. Do not contaminate fruit.
Limes	0.25		
Oranges	0.25		
Tangerines	0.25	5.0	
Tangeloes			
		1.0%	Wet or dry bait formulations. Apply to soil around trees. Do not contaminate fruit. Follow preharvest interval required for comparable dosage on each crop.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIELDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Corn (seed)		2.0 oz./bu.	Do not use for food or feed.
Cotton		1.0	Do not graze treated fields by dairy animals or animals being finished for slaughter.
Cotton (seed)		2.0 oz./bu.	Do not use as food or feed.
Cowpeas (seed)		2.0 oz./bu.	Do not use as food or feed.
Cranberries	0.1	1.25	21 days.
		5.0	Broadcast soil application. Preplanting or post-harvest in fall or in spring before blooming. Dosage may be doubled for peat or muck soils.
Cucumbers	0.25	0.5	7 days.
Currants		1.0	Do not apply after first bloom.
Deciduous Fruits & Nuts:			
Almonds		5.0	45 days. Apply to lower portion of trunk, but not to fruit or foliage. May be
Apples	0.25		applied to trunk and lower branches when
Apricots	0.1		no fruit is present.
Cashews			
Cherries	0.25		
Chestnuts		1.0%	Wet or dry bait formulations. Apply to
Dates			soil around trees. Do not contaminate
Figs			fruit. Follow preharvest interval
Filberts			required for comparable dosage on each
Hazelnuts			crop.
Hickory nuts			
Nectarines	0.1		
Olives			
Peaches	0.1		
Pears	0.25		
Pecans			
Persimmons			
Plums	0.1		
Pomegranate			
Prunes	0.1		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIELDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Deciduous Fruits & Nuts: (cont.)			
Quinces Walnuts		5.0	45 days. Apply to lower portion of trunk, but not to fruit or foliage. May be applied to trunk and lower branches when no fruit is present.
		1.0%	Wet or dry bait formulations. Apply to soil around trees. Do not contaminate fruit. Follow preharvest interval required for comparable dosage on each crop.
Dewberries		1.0	Do not apply after first bloom.
Eggplants	0.1	0.5	7 days.
Field and Forage Crops:			
Buckwheat Cotton Flax Hops Popcorn Safflower Sugarcane	0	3.0 1.0	Preplanting soil application or at time of planting. Double dosages accepted for peat or muck soils. Wet or dry bait formulations. Apply to soil around plants. Follow preharvest interval required for comparable dosage on each crop.
Gooseberries		1.0	Do not apply after first bloom.
Grapes	0.1	0.25	14 days.
Horseradish	0.1	0.5	21 days.
Hops		5.0	Soil application. Apply during early spring before growth starts.
Lettuce	0.25	0.5	21 days.
Mangoes	0.1	0.75	45 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIELDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Melons	0	0.5	Do not apply after blossoming.
Mint		5.0	Preplanting soil treatment or during dormant season on old plantings.
Muskmelons	0	0.5	Do not apply after blossoming.
Nectarines	0.1	4.0	45 days. Full coverage spray. Do not graze dairy animals or animals being finished for slaughter in treated orchards.
Oats (seed)		2.0 oz./bu.	Do not use for food or feed.
Onions	0.1	0.5	14 days. Do not apply to green or spring onions.
Parsnips	0.1	0.25	21 days.
Peaches	0.1	4.0	45 days. Full coverage spray. Do not graze dairy animals or animals being finished for slaughter in treated orchards.
		0.015 lb./tree	Band treatment. Do not contaminate fruit.
Pears	0.25	3.0	35 days. Do not allow dairy animals or animals being finished for slaughter to graze on treated forage.
Peas (seed)		2.0 oz./bu.	Do not use as food or feed.
Peppers	0.1	0.5	7 days.
Pimentos	0.1	0.5	7 days.
Pineapple	0.25	1.0	60 days. Do not feed husks to meat or dairy animals.
Potatoes	0.1	0.5	3 days.
Plums	0.1	4.0	30 days. Full coverage spray.
		0.015 lb./tree	Band treatment. Do not contaminate fruit.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIELDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Prunes	0.1	4.0	30 days. Full coverage spray.
		0.015 lb./tree	Band treatment. Do not contaminate fruit.
Pumpkins	0	0.5	Do not apply after blossoming.
Quinces	0.25	3.0	35 days. Full coverage spray.
Radishes	0.1	0.5	21 days.
Raspberries		1.0	No application after first bloom.
Rice (seed)		2.0 oz./bu.	Do not use as food or feed.
Rutabagas	0.25	0.5	30 days.
Rye (seed)		2.0 oz./bu.	Do not use as food or feed.
Sorghum (seed)		2.0 oz./bu.	Do not use as food or feed.
Soybeans (seed)		2.0 oz./bu.	Do not use as food or feed.
Squash (summer)	0.25	0.5	7 days.
Strawberries	0.1	1.0	Foliage treatment only. Do not apply after fruit begins to form.
Sweet potatoes	0.1	1.5	21 days.
Tomatoes	0.1	0.75	15 days.
		0.5	7 days.
Tropical Fruits:			
Avocados	0	4.0	Preplanting soil application or when no fruit is present.
Bananas	0.25 (pulp)		
Guavas			
Mangoes	0.1		
Papayas			
Passion fruit			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIELDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables:		lbs. actual/A.	
Asparagus	0.1	3.0	Preplanting soil application, at time of planting, or before edible parts begin to form. Double dosages accepted in peat or muck soils.
Beans	0		
Beets	0.25		
Broccoli	0.25		Wet or dry bait formulation. Apply to soil around plants. Do not contaminate edible parts. Follow preharvest limitation required for comparable dosage on each crop.
Brussels sprouts	0.25	1.0	
Cabbage	0.25		
Cantaloupes	0		
Cauliflower	0.25		
Cucumbers	0.25		
Eggplants	0.1		
Garlic			
Horseradish	0.1		
Leeks			
Lettuce	0.25		
Melons			
Okra			
Onions	0.1		
Parsnips	0.1		
Peppers	0.1		
Pimentoes	0.1		
Pumpkins	0		
Radishes	0.1		
	(roots & tops)		
Rutabagas	0.25		
Shallots			
Squash (summer)	0.25		
Squash (winter)	0		
Sweet potatoes	0.1		
Tomatoes	0.1		
Watermelons	0		
Watermelons	0	0.5	Do not apply after blossoming.
Wheat (seed)		2.0 oz./bu.	Do not use for food or feed.
Winter squash	0	0.5	Do not apply after blossoming.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIELDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:		lbs. actual/A.	
Sheep	0 (in meat)	0.003 lbs./head	Dust application immediately after shearing. Do not reapply. Do not apply within 90 days of slaughter.
Agricultural Premises:			
Barns (excluding dairy barns)		4.0% (lacquer)	Applied as spot or band treatment with a brush or spray. Do not contaminate feed or drinking water.
		2.0% (in water)	Residual surface application. Do not contaminate feed or drinking water. Do not apply in dairy barns or poultry houses.
Cage, poultry operations (in open range houses)		2.0% (in water)	Apply to droppings under poultry cages, walkways, and outside of building. Do not spray birds. Do not contaminate feed or drinking water. Do not apply inside poultry houses.
General:			
Imported Fire Ant Control on uncultivated land and cropland		2.0	Soil application. Do not contaminate food crops.
		0.25% (in water)	Individual mound treatment. Three gallons per mound. Do not contaminate food crops.
Red Harvester Ant control		1.5% (in water)	Individual mound treatment. One gallon per mound. Do not contaminate food crops.
		2.5% (dust)	Apply dust to mound and in a band around mound. Do not contaminate food crops.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIETHYL O-3-CHLORO-4-METHYL-2-OXO-2H-1-BENZOPYRAN-7-YL-PHOSPHOROTHIOATE*

PRINCIPAL FORMULATIONS: 0.5% and 5% dust; 25% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cattle	1.0 (meat, fat, meat by products)	10.0 gram/ animal in water or mineral oil	Apply to the back of animals by sprinkling or brushing. Do not apply to lactating dairy animals or to dry dairy animals within 14 days of freshening.
	0 (in milk)	0.125% in water	Dip. Do not apply to lactating dairy animals or to dry dairy animals within 14 days of freshening.
		0.25% in water	Dip. No limitations for slaughter stock. Do not apply to lactating dairy animals or to dry dairy animals within 14 days of freshening.
		0.375-0.5% in water	Spray. No limitations for slaughter stock. Do not apply to lactating dairy animals or to dry dairy animals within 14 days of freshening. Higher concentration to be used in Northern areas or for late fall applications when long hair coats make thorough wetting of the skin difficult.
		1.0% (in oil)	Apply by backrubbers.
		5.0% (dust)	Apply locally in ears and adjacent head areas, in and around wounds, cuts, scratches, etc. Do not apply to lactating dairy animals or to dry dairy animals within 14 days of freshening.
Poultry	1.0 (meat, fat, meat by products)	0.25% in water	Apply 1 gallon per 100 birds.
		0.5% (dust)	Apply thoroughly to birds. or Apply 3 lbs. dust per 50 birds in self- treatment dust box.
	0 (in eggs)		

*Proprietary name: "Co-Ral"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIETHYL O-3-CHLORO-4-METHYL-2-OXO-2H-1-BENZOPYRAN-7-YL PHOSPHOROTHIOATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sheep & Goats	1.0 (meat, fat, meat by- products)	0.25% in water	Spray. Do not apply within 15 days of slaughter. Do not apply to lactating dairy animals or to dry dairy animals within 14 days of freshening.
	0 (in milk)	5.0% dust	Apply locally in ears and adjacent head areas, in and around wounds, cuts, scratches, etc. Do not apply to lactating dairy animals or to dry dairy animals within 14 days of freshening.
		0.5% (dust)	Apply 1-2 ounces per animal and rub into wool over entire body. Do not apply within 15 days of slaughter.
Swine	1.0 (meat, fat, meat by- products)	0.25% in water	Spray. No time limitations.
		5.0% (dust)	Apply locally in ears and adjacent head areas, in and around wounds, cuts, scratches, etc.
Agricultural Premises:			
Poultry Houses	1.0 (meat, fat, meat by- products)	0.25% in water	Spray litter and house at the rate of 1 gallon/1000 sq. ft.
		0.5% (dust)	Apply to litter at the rate of 5 lbs./100 sq. ft. Apply to all interior surfaces at the rate of 1.4 lbs./100 sq. ft.
	0 (eggs)	5.0% (dust)	Apply to litter at the rate of 6.6 oz./100 sq. ft. Apply to all interior surfaces at the rate of 2 oz./100 sq. ft.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIETHYL DITHIO BIS (THIONOFORMATE)

PRINCIPAL FORMULATIONS: 58.0% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Beans		10.0	Preemergence application 24-48 hours before crop emerges. Do not feed treated vines to livestock.
Snap			
Onions		10.0	Preemergence application 24-48 hours before crop emerges.
		10.0	Post-emergence application after flag stage. Do not apply to green or spring onions.
		10.0	Preharvest desiccant application. Do not apply within 48 hours of harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIETHYL S-2-(ETHYLTHIO) ETHYL PHOSPHORODITHIOATE*

PRINCIPAL FORMULATIONS: 2 1/2%, 5%, and 10% granular; 50% seed treatment (with added sticker)
65.7% liquid containing 6 lbs./gal.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa	12 (hay)	1.0	Granular formulations. Mix with seed at time of planting or apply by drilling, sidedressing, or broadcasting as needed. Allow a minimum of 28 days between applications.
	5 (fresh forage)		
Barley	0.75 (grain)	1.0	60 days. Soil application at time of planting or after emergence. Do not apply more than twice per season. Do not graze or cut for forage within 30 days after treatment.
	5.0 (forage or straw)		
Beans			Soil application to furrow at time of planting. Do not apply more than once per season.
Green Lima Snap	0.75 (beans)	2.0	
	5.0 (on vines)		
Beans			60 days. Soil application to furrow at time of planting or as side-dressing after emergence.
Dry	0.75 (beans)	2.0	
	5.0 (vines)		
Broccoli	0.75	1.0	Soil application by drilling, or side-dressing. Do not apply more than once per season.
Brussels Sprouts	0.75	1.0	30 days. Soil application to furrow at time of planting or as side-dressing after emergence. Do not apply more than twice per season.

*Proprietary name: "Di-Syston"

Issued: 10-1-66

292

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIETHYL S-2-(ETHYLTHIO) ETHYL PHOSPHORODITHIOATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cabbage	0.75	1.5	Apply by drilling or sidedressing. Only one application per season. Do not apply within 42 days of harvest.
Cauliflower	0.75	1.0	Soil application to furrow at time of planting or as sidedressing after emergence. Do not apply more than twice per season. Do not apply within 40 days of harvest.
Clover	5 (fresh clover) 12 (clover hay)	1.0	Broadcast application as needed. Do not apply within 7 days of harvest or grazing. Allow a minimum of 28 days between applications.
Coffee		0.3 to 0.6 grams actual per foot of tree height	Apply uniformly under tree canopy once per season. Do not apply within 90 days of harvest.
Corn	0.75 (corn forage)	1.0	Apply at planting time: Band application. Do not feed forage or cut treated corn for feed or ensilage within 40 days after application. Do not harvest for human food purposes within 100 days of treatment. or Postplanting application as sidedressing. Apply as sidedress or soil injection on each side of furrow after emergence. Do not feed forage or cut treated corn for food, feed, or ensilage within 100 days of treatment. Do not apply to corn more than once per season regardless of the method of application.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIETHYL S-2-(ETHYLTHIO) ETHYL PHOSPHORODITHIOATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton (Nonirrigated)	0.75 (seed)	1.0 lbs. actual/A.	Granular formulation. Apply by drilling or sidedressing at time of planting or as a broadcast treatment after crop emerges. Do not apply within 28 days of harvest. Do not apply more than twice per season. Allow a minimum of 21 days between applications.
Cotton (Irrigated only)	0.75 (seed)	1.0 or 2.0	Granular formulation. Apply one lb. actual per acre at time of planting followed by: Up to 2 lbs. actual per acre as late as first squaring (90 days before harvest) or Up to 1 lb. actual per acre as late as 28 days before harvest. Do not apply more than twice per season. Allow a minimum of 21 days between applications.
Lettuce	0.75	2.0	Soil application to furrow or as sidedressing at time of planting. or Apply in fall or winter seeded lettuce as a sidedressing at thinning time. Do not apply within 60 days of harvest.
Oats	0.75 (grain) 5.0 (forage or straw)	1.0	Soil application at time of planting or after emergence. Do not apply more than twice per season. Do not apply within 60 days of harvest. Do not graze or cut for forage within 30 days after treatment.
Peanuts	0.75 (peanuts) 5.0 (peanut hay)	2.0	Granular: Soil application to furrow or as sidedressing at time of planting and as sidedressing at pegging time. Liquid: Spray in furrow or as soil injection sidedressing at time of planting, and at pegging time.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIETHYL S-2-(ETHYLTHIO) ETHYL PHOSPHORODITHIOATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Pecans		lbs. actual/A. 2.5	New Mexico only. Apply as a band treatment to soil in 6 ft. bands on each side of trees. Bands should be located under main drip areas of trees. Work chemical into upper 2-3 inches of soil and irrigate immediately. Make only one application per season in early spring. Do not harvest nuts within 180 days after application.
	0.75	3.0	South Central and Southwest states only. Apply as a 6 ft. band on both sides of tree rows. Work into soil to a depth of 2-3". In irrigated groves, irrigate as soon as possible after application. Apply only once per season preferably in early spring. Do not harvest nuts within 80 days after treatment.
Peas	0.75 (peas)	1.0	Soil application at time of planting.
	5.0 (vines)	2.5	Granular: Apply by drilling or broadcasting at time of planting or as a sidedressing after emergence. Liquid: Apply as a spray in furrow or by soil injection at time of planting or after emergence. Do not apply within 50 days of harvest. Do not apply more than once per season.
Pineapple	0.75 (pine-apple)	2.5	Apply broadcast or by base leaf feeding after plants have developed root systems. Do not apply more than twice per crop season. Do not apply within 60 days of harvest. When two applications are made, do not ensile foliage within one year following last application.
	5.0 (pine-apple foliage)		
Potatoes	0.75	3.0	Furrow treatment at time of planting or as a sidedressing either alone or with fertilizers. Do not apply within 75 days of harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIETHYL S-2-(ETHYLTHIO) ETHYL PHOSPHORODITHIOATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Rice	0.75 (rice) 5.0 (straw)	2.0	Broadcast soil application at time of planting or prior to flooding. Do not apply more than twice per season. Do not apply within 100 days of harvest.
Spinach	0.75	1.0	Soil application to furrow or as sidedressing at time of planting.
Strawberries (propagating beds only)		4.0	Do not use fruit from treated plants for food.
Sugar beets	0.5 on sugar beets 2.0 on tops	1.0	30 days.
Tomatoes	0.75	2.25	States other than Florida. Soil application to furrow at time of planting and as a soil treatment after plants become established. Do not apply within 30 days of harvest.
		3.0	Soil application to furrow at time of planting.
		3.0	Florida only. Granular: Soil application in furrow at time of planting and a second application as a sidedressing after plants are established. Liquid: Apply as spray in furrow or by soil injection at time of planting and a second application by soil injection after plants are established. Do not apply within 30 days of harvest.
	0.75	6.0	Florida only. Granular: Single application to furrow at time of planting. Liquid: Single application as spray to furrow or soil injection at time of planting.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIETHYL S-2-(ETHYLTHIO) ETHYL PHOSPHORODITHIOATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes (cont.)	0.75	lbs. actual/A. 6 oz. of 2% granules per 50 ft. of row	Apply to seed furrow. Place granules below or one side of seed. Do not allow seed to come into direct contact with granules.
Wheat		1 rounded teaspoonful of 2% granules/plant	Apply to soil in transplant hole, and mix with soil prior to transplanting.
Fall	0.3 (grain) 5.0 (green forage or straw)	1.0	Soil application by drilling or broadcasting at time of planting in the fall.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIETHYL O-[p-(METHYLSULFINYL) PHENYL] PHOSPHOROTHIOATE

PRINCIPAL FORMULATIONS: 10% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Onions (dry bulb)		lbs. actual/A. 1 (granular)	Apply at time of planting. Do not apply to green bunch onions.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIETHYL O-[2-ISOPROPYL-4-METHYL-PYRIMIDYL (6)] THIOPHOSPHATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Celery	0.75	0.5	10 days.
		4.0	Preplanting broadcast soil application.
Cherries	0.75	5.0	Postharvest application only.
		4.0	10 days.
Clover	40 (fresh clover)	0.6	Dust or spray application. Do not apply within 7 days of cutting or grazing by animals being finished for slaughter.
	10 (clover hay)	4.0	Preplanting broadcast soil application.
Collards	0.75	0.5 (spray) 1.6 (dust)	10 days.
		1.0	Broadcast soil application 1 to 2 days prior to sowing seed in plant beds or transplanting in fields. Mix with top 1-2" of soil.
		4.0	Preplanting broadcast soil application.
Corn	0.75 (on ker- nels & cob with husks removed)	1.25 (spray)	Corn may be picked immediately following last application. Corn forage may be fed to dairy cattle, beef cattle, and sheep.
			or
			No time limitations on corn (fresh) or (grain). Do not feed treated forage to livestock within 2 days after treatment.
	40.0 (on corn forage)	2.0	Corn may be picked immediately following last application. Do not feed forage to livestock within ten days following last application.

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIETHYL O-[2-ISOPROPYL-4-METHYL-PYRIMIDYL (6)] THIOPHOSPHATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Corn (cont.)	0.75 (on kernels & cob with husks removed)	1.6 (dust)	Do not apply within 2 days of harvest. Do not feed treated forage to animals being finished for slaughter within 2 days after treatment.
		1.0	Apply as a spray around base of plants, between time of planting and last cultivation.
		2.0	Soil application to furrow at time of planting.
		4.0	Preplanting broadcast soil application.
Corn (seed)		2 oz./bu.	Do not use as food or feed.
Cotton		0.5 (spray)	14 days. Do not graze dairy or meat animals in treated fields. Do not feed gin waste to livestock.
		1.0 (dust)	
Cotton (seed)		2 oz./bu.	Do not use as food or feed.
Cowpeas		4.0	Preplanting broadcast soil application.
Cranberries	0.75	3.0	7 days.
Cucumber	0.75	0.5 (spray)	7 days.
		1.6 (dust)	
		4.0	Preplanting broadcast soil application.
Endive	0.75	0.5	10 days.
		1.0	Broadcast soil application 1 to 2 days prior to sowing seed in plant beds or transplanting in fields. Mix with top 1-2" of soil.
		4.0	Preplanting broadcast soil application.
Figs	0.75	4.0	Full coverage spray. 10 days.
		2.5	Full coverage spray. 5 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIETHYL O-[2-ISOPROPYL-4-METHYL-PYRIMIDYL (6)] THIOPHOSPHATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Parsley	0.75	0.5 (spray) 1.6 (dust)	12 days.
		4.0	Preplanting broadcast soil application.
Parsnips	0.75	0.5	7 days.
		4.0	Preplanting broadcast soil application.
Pasture and Grass forage	60 ppm on grass of which not more than 40 ppm shall remain 24 hours after appli- cation	0.5	Dairy cattle, beef cattle and sheep; (1) may be grazed immediately following application; (2) may be fed green forage immediately following cutting; and (3) may be fed hay provided grass is not cut for hay for 21 days if the spray is a water solution or for 30 days if the spray is an oil solution. Do not spray livestock directly with either air or ground equipment. Do not repeat appli- cation for 30 days.
	10 ppm on grass hay		
Peaches	0.75	4.0	20 days.
Peanuts		4.0	Apply just prior to pegging and work into top few inches of soil immediately.
		2.0	Do not feed treated hulls to livestock. Do not feed peanut hay to livestock within 60 days after treatment.
Pears	0.75	12.0	Postharvest application.
		6.0	Full coverage spray. 14 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIETHYL O-[2-ISOPROPYL-4-METHYL-PYRIMIDYL (6)] THIOPHOSPHATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Peas	0.75 (peas with shells removed)	0.5	Peas may be picked immediately. Pea vines and peavine hay may be fed to dairy cattle, beef cattle, and sheep. Wait 4 days following treatment if forage is to be cut for hay.
	10 (pea- vine hay)	4.0	Preplanting broadcast soil application.
	25 (pea- vines)		
Peas (seed)		2.0 oz./bu.	Do not use as food or feed.
Pecans		5.0	Do not apply after shucks split.
Peppers	0.75	5.0	No application after first bloom.
		0.25 (spray) 1.6 (dust)	5 days.
		1.0	Broadcast soil application 1 to 2 days prior to sowing seed in plant beds or transplanting in fields. Mix with top 1-2" of soil.
		4.0	Preplanting broadcast soil application.
Potatoes		2.0	Foliar spray. 14 days.
		2.0	Preplanting band soil application.
		4.0	Preplanting broadcast soil application.
Plums	0.75	4.0	Full coverage spray. 10 days.
Prunes	0.75	4.0	Full coverage spray. 10 days.
Radishes	0.75	0.5	10 days.
		2.0	Apply to furrow at time of planting.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,2-DIHYDRO-6-ETHOXY-2,2,4-TRIMETHYLQUINOLINE*

PRINCIPAL FORMULATIONS: 70% liquid;
0.131% and 0.1% paper wraps;
0.14% wax emulsion

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples	3	11.25 (2700 ppm)	Preharvest for scald control. Make only 1 spray application within 2 days of harvest.
		3 pints/100 gals. water (2700 ppm)	Post-harvest dip or spray for scald control. Dip fruit for 15 seconds or spray fruit passing over grader. Do not apply later than one week after harvest.
Pears	3	2700 ppm	Postharvest dip for scald control. Dip fruit for 15 seconds. Do not apply later than 1 week after harvest.
		1400 ppm (5.3 gms./ 10,000 lbs. of fruit)	Postharvest wax emulsion for scald control. Apply with foamer or sprayer. Do not apply later than 1 week after harvest. Do not use on pears treated with post-harvest dip.
		1310 ppm (on paper wraps)	Postharvest wraps. Wrap fruit within 1 week after harvest and before storage. Do not use on pears previously treated with ethoxyquin.

*Proprietary name: "Ethoxyquin"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIMETHOATE*

PRINCIPAL FORMULATIONS: Emulsion concentrate containing 4.0 and 2.67 lbs./gal.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		0.5	Do not apply during bloom period. Do not apply within 28 days of harvest or pasturing. Do not apply more than once per season.
Apples	2	6.0	28 days.
Beans (green, lima, & snap)	2	0.5	No time limitations. Do not feed treated vines to livestock.
Broccoli	2	0.5	7 days.
Cabbage	2	0.5	3 days.
Cauliflower	2	0.5	7 days.
Collards	2	0.25	14 days.
Cotton		0.5	Do not apply within 14 days of harvest. Do not feed treated forage or graze livestock on treated fields. Do not repeat application within 14 days.
Endive (escarole)	2	0.25	14 days.
Kale	2	0.25	14 days.
Lettuce (head)	2	0.25	7 days.
Lettuce (leaf)	2	0.25	14 days.
Mustard greens	2	0.25	14 days.
Pears	2	6.0	28 days.
Peas	2	3 oz. actual/ acre	Peas may be harvested on day of application. Do not feed or graze hay within 21 days after last application when a stationary

*O,O-dimethyl s-(methylcarbamoylmethyl) phosphorodithioate

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIMETHOATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Peas (cont.)			viner is used. Do not feed or graze when a mobile viner is used.
Peppers	2	0.33	No time limitations.
Potatoes		0.5	7 days.
Safflower (Calif.)		0.5	Do not apply within 14 days of harvest. Do not repeat application within 14 days.
Spinach	2	0.25	14 days.
Swiss chard	2	0.25	14 days.
Tomatoes	2	0.5	7 days.
Turnips (greens & roots)	2	0.25	14 days.
Watermelons		0.5	7 days.
Agricultural Premises:			
Barns		1.0%	Apply thoroughly as a surface spray to interior and exterior surfaces. Remove animals from buildings prior to spraying.
Dairy barns			
Poultry houses			
Other farm buildings		1.25%	Apply as a spot spray to interior and exterior surfaces. Remove animals from buildings prior to spraying.
Manure piles			
Outdoor areas			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIMETHYL O-[4-(METHYLTHIO)-m-TOLYL] PHOSPHOROTHIOATE*

PRINCIPAL FORMULATIONS: 46.1% liquid containing 4 lbs. actual per gallon

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises: Barns (exclud- ing dairy barns and poultry houses		1.5% in water	Apply at the rate of 1 gal. of diluted spray to 500 square feet of surface.

*Proprietary name: Baytex

316a

Issued: 10-1-66

Follows page 316

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIMETHYL S-[4-OXO-1,2,3-BENZOTRIAZIN-3 (4H) YLMETHYL] PHOSPHORODITHIOATE*

PRINCIPAL FORMULATIONS: 12.5% and 25.0% wettable powder; emulsifiable concentrate containing 1.5 lbs. and 2 lbs. per gallon; 2.5% and 3.0% dust; 7% and 10% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa	2 (fresh forage)	0.75	21 days. Do not apply more than once between cuttings.
	5 (hay)	0.375	14 days. Do not apply more than once between cuttings.
		0.5	16 days. Do not apply more than once between cuttings.
Apples	2.0	6.0	15 days.
Apricots	2.0	2.5	21 days.
Artichokes	2.0	1.5 (spray) 2.1 (dust)	30 days. Do not feed or ensile treated forage.
Beans (snap)	2.0	0.5 (spray) 0.6 (dust)	7 days. Do not feed or ensile treated forage.
Beans (dry)		0.5 (spray) 0.6 (dust)	30 days. Do not apply more than 4 times per season. Do not feed or ensile treated forage.
Blackberries	2.0	0.5 (spray) 0.9 (dust)	14 days. Foliar application.
		2.0	Apply only before fruit set or after crop is harvested. Apply to lower portion of canes and to soil beneath plants.
		1.0	3 days. Apply to lower portions of canes and to soil beneath plants. Do not apply more than twice per season.
Boysenberries	2.0	0.5 (spray) 0.9 (dust)	14 days. Foliar application.

*Proprietary name: "Guthion"

Issued: 10-1-66

317

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIMETHYL S-[4-OXO-1,2,3-BENZOTRIAZIN-3 (4H) YLMETHYL] PHOSPHORODITHIOATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Boysenberries (cont.)		2.0	Apply only before fruit set or after crop is harvested. Apply to lower portion of canes and to soil beneath plants.
		1.0	3 days. Apply to lower portion of canes and to soil beneath plants. Do not apply more than twice per season.
Blueberries	2.0	1.0	14 days.
Broccoli	2.0	0.75	15 days.
		0.75% (in water)	Apply as a soil drench at the rate of 1/2 pint per plant at the time of transplanting or immediately after.
Brussels sprouts	2.0	0.75% (in water)	Apply as a soil drench at the rate of 1/2 pint per plant at the time of transplanting or immediately after.
		0.75	7 days.
Cabbage	2.0	0.75	21 days.
		0.75% (in water)	Apply as a soil drench at the rate of 1/2 pint per plant at the time of transplanting or immediately after.
Cantaloupes		0.5	14 days.
Cauliflower	2.0	0.75	15 days.
		0.75% (in water)	Apply as a soil drench at the rate of 1/2 pint per plant at the time of transplanting or immediately after.
Cherries	2.0	4.0	15 days. Full coverage spray. Do not apply more than 8 times per season.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIMETHYL S-[4-OXO-1,2,3-BENZOTRIAZIN-3 (4H) YLMETHYL] PHOSPHORODITHIOATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Citrus fruits	2 (fruit)	7.5	A single application per year may be applied up to within 7 days of picking. Where 2 applications are required, the second spray should not be applied within 28 days of harvest. Do not apply more than twice per fruit year. Do not pick fruit or do other work involving contact with the tree, such as pruning, within 7 days of treatment.
	5 (dried pulp)		
Clover	2 (fresh forage)	0.75	Do not apply more than once between cuttings. Do not apply within 21 days of harvest.
	5 (hay)	0.375	14 days. Do not apply more than once between cuttings.
		0.5	16 days. Do not apply more than once between cuttings.
Cotton	0.5 (cotton-seed)	1.0	Do not apply within 1 day of picking. If late season applications are made, do not graze livestock on treated areas or feed gin waste.
Cowpeas		1.0	7 days. Do not apply more than 4 times per season. Do not graze or feed treated forage to livestock.
Crabapples	2.0	3.75	15 days.
Cranberries	2.0	1.0	21 days.
Cucumbers		0.5	6 days. Do not apply more than 3 times per season.
Eggplants		0.5	Do not apply after edible parts begin to form.
Filberts		7.5	30 days. Do not graze livestock in treated groves within 21 days after application.
Grapes	5.0	0.75	No time limitations. Do not apply more than 3 times per season.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIMETHYL S-[4-OXO-1,2,3-BENZOTRIAZIN-3 (4H) YLMETHYL] PHOSPHORODITHIOATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Grapes (cont.)		1.5	28 days. Do not apply more than 3 times per season.
		1.125	10 days. Do not apply more than 3 times per season.
Honeydew melons		0.5	14 days.
Loganberries	2.0	0.5 (spray) 0.9 (dust)	14 days. Foliar application.
		2.0	Apply only before fruit set or after crop is harvested. Apply to lower portion of canes and to soil beneath plants.
		1.0	3 days. Apply to lower portion of canes and to soil beneath plants. Do not apply more than twice per season.
Melons		0.5	14 days.
Nectarines	2.0	2.5	21 days.
		3.0	Do not apply after mid-season.
Oats		0.6	Do not apply more than once per season. Do not apply within 30 days of harvest or grazing livestock.
Onions	2.0	1.5	Apply to furrow at planting.
Onions (dry)		0.75	28 days. Do not apply more than 3 times per season.
Peaches	2.0	2.5	21 days.
		3.0	Do not apply after mid-season.
Pears	2.0	6.0	15 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIMETHYL S-[4-OXO-1,2,3-BENZOTRIAZIN-3 (4H) YLMETHYL] PHOSPHORODITHIOATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Pecans		10.0	Do not apply after husks split. Do not graze livestock in treated groves.
		5.6	Do not apply after husks split. Do not graze livestock in treated groves within 21 days after treatment.
Peppers		0.5	Do not apply within 5 days of harvest if not more than 4 applications are made. Do not apply within 14 days of harvest if more than 4 applications are made.
Plums	2.0	4.0	15 days. Do not apply more than 8 times per season.
Potatoes		0.75	7 days.
Prunes	2.0	4.0	15 days. Do not apply more than 8 times per season.
Quinces	2.0	6.0	15 days.
Raspberries	2.0	0.5 (spray) 0.9 (dust)	14 days. Foliar application.
		2.0	Apply only before fruit set or after crop is harvested. Apply to lower portion of canes and to soil beneath plants.
		1.0	3 days. Apply to lower portion of canes and to soil beneath plants. Do not apply more than twice per season.
Soybeans		0.5 (spray) 0.6 (dust)	Do not apply within 21 days of harvest. Do not graze or feed treated plants to livestock.
Spinach	2.0	0.5 (spray) 0.75 (dust)	14 days.
Strawberries	2.0	0.5	5 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIMETHYL S-[4-OXO-1,2,3-BENZOTRIAZIN-3 (4H) YLMETHYL] PHOSPHORODITHIOATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Sugarcane	0.3	1.5	40 days. Do not apply more than 5 times per season. Treated cane must be burned off at harvest or washed before processing. Do not feed treated forage or harvest trash to livestock.
Tomatoes	2.0	0.75	No time limitations.
Walnuts		10.0	Do not apply after husks split. Do not graze livestock in treated groves within 21 days after treatment.
Wheat		0.6	Do not apply more than once per season. Do not apply within 30 days of harvest or grazing livestock.
Watermelons		0.5	14 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIMETHYL S-p-CHLOROPHENYL THIOMETHYL PHOSPHORODITHIOATE*

PRINCIPAL FORMULATIONS: 22.3% and 44.2% emulsifiable concentrate; 2.5% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A. 0.5 (spray) 0.625 (dust)	Do not apply after half the bolls are open. Do not graze livestock on treated fields or feed gin waste to livestock.

*Proprietary name: Methyl Trithion

Issued: 2-10-65

323

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIMETHYL S-2-(ETHYLSULFINYL) ETHYLPHOSPHOROTHIOATE*

PRINCIPAL FORMULATIONS: 25.4% emulsifiable concentrate containing 2 lbs./gal.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Broccoli		0.5	Do not apply more than once per season. Do not apply within 21 days of harvest.
Brussels sprouts		0.5	Do not apply more than three times per season. Do not apply within 24 days of harvest.
Cabbage		0.5	Do not apply more than three times per season. Do not apply within 24 days of harvest.
Caneberries		1.1	Full coverage spraying. Do not apply more than once per season. Do not apply within 30 days of harvest.
Cantaloupes		0.5	Do not apply more than three times per season. Do not apply within 14 days of harvest.
Cauliflower		0.5	Do not apply more than three times per season. Do not apply within 24 days of harvest.
Corn		0.5	Do not apply more than once per season. Do not apply within 14 days of harvest for corn. Do not apply within 30 days of harvest for corn forage.
Cotton		0.5	Do not apply more than three times per season. Do not apply within 14 days of picking. Do not graze treated areas or feed gin trash to dairy or meat animals.
Cucumbers		0.5	Do not apply more than twice per season. Do not apply within 14 days of harvest.
Muskmelons		0.5	Do not apply more than three times per season. Do not apply within 14 days of harvest.

*Proprietary name: Meta-systox-R

324

Issued: 10-1-66

Replaces page issued 2-10-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIMETHYL S-2-(ETHYLSULFINYL) ETHYLPHOSPHOROTHIOATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Pears		3.0	Full coverage spray. Do not apply more than once per season. Do not apply within 30 days of harvest.
Potatoes		0.5	Do not apply within seven days of harvest.
Pumpkins		0.5	Do not apply more than once per season. Do not apply within 14 days of harvest.
Safflower (seed crop)		0.5	Do not graze or feed forage from treated areas to livestock. Do not use seed as food or feed.
Squash Summer Winter		0.5	Do not apply more than once per season Do not apply within 14 days of harvest.
Sugar beets		0.5	Do not apply more than twice per season. Do not apply within 30 days of harvest or feeding tops and forage to livestock.
Turnips		0.5	Do not apply more than twice per season. Do not apply within 14 days of harvest. Do not use turnip tops for food or forage.
Watermelons		0.5	Do not apply more than twice per season. Do not apply within seven days of harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIMETHYL 3-HYDROXYGLUTACONATE DIMETHYLPHOSPHATE

PRINCIPAL FORMULATIONS: 1% sugar bait

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises: Barns Dairy Barns Animal Pens Cage Poultry Houses		1.0% (bait)	Apply at the rate of 4 ozs. of 1% bait per 1,000 sq. ft. of floors, sills, walks, and manure piles. Do not use inside human dwellings. Do not contaminate milk, milk handling equipment, feed, foodstuffs or drinking water. Do not treat areas or surfaces which are accessible to poultry or other livestock. Do not use treated garbage for animal feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIMETHYL PHOSPHATE OF ALPHA-METHYL BENZYL 3-HYDROXY-CIS-CROTONATE*

PRINCIPAL FORMULATIONS: Emulsifiable concentrate containing 3.2 lbs./gal.;
3% dusting powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Beef Cattle Dairy Cattle		1.0% (in oil)	Apply by backrubbers.
		1.0% (in water)	Pour along backline at rate of one quart per animal. Do not apply more often than once every 7 days. Do not contaminate food, feed, or drinking water.
		0.3% (in water)	Thorough application to animals. Do not apply more often than once per week. Do not contaminate food or feed.
		3.0% (dusting powder)	Apply at the rate of 1-2 heaping table-spoonfuls per animal on poll, back, and upper portions of sides. Do not repeat application within 14 days.
		2.0% (in oil)	Apply at the rate of 2 oz. per animal per day. Do not contaminate feed, food, or drinking water.
		2.0% (in water)	Apply daily at the rate of 2 oz. per animal. Do not contaminate food, feed, or drinking water.
		1.0% (in water)	Apply at the rate of 1 quart per animal the size of an adult cow, proportionately less for smaller animals. Do not apply more often than every 7 days. Do not contaminate food, feed, or drinking water.
		0.5% (in water)	Apply at the rate of 1-2 quarts per animal the size of an adult cow, proportionately less for smaller animals. Do not apply more often than every 7 days. Do not contaminate food, feed, or drinking water.
Goats Sheep Swine		0.3% (in water)	Thorough application to animals. Do not apply more often than once per week. Do not contaminate food or feed.

*Proprietary name: "Ciodrin"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIMETHYL PHOSPHATE OF ALPHA-METHYL BENZYL 3-HYDROXY-CIS-CROTONATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Goats Sheep Swine (cont.)		1.0% (in water)	Apply at the rate of 1/2 oz. per animal to the face, back, and sides of animal. Do not apply more than 3 times per week.
		1.0% (in oil)	Apply 1 oz. daily per adult goat, hog, or sheep. Reduce dosage 1/2 for younger animals. For best results, apply in the morning for protection during the day. Do not overdose.
		1.0% (in water)	Apply at the rate of 1 pint per animal. Do not apply more often than 7 days. Do not contaminate food, feed, or drinking water.
		0.5% (in water)	Apply at the rate of 1 quart per animal. Do not apply more often than 7 days. Do not contaminate food, feed, or drinking water.
		0.25% (in oil)	Apply in combination with other insecticides as a mist spray over back and withers of swine at the rate of 1/2 ounce per animal.
Agricultural Premises:			
Barns		0.3% (in water)	Apply liberally as a surface spray. Do not contaminate food or feed.
Dairy barns			
Fences		1.0% (in water)	Apply as a spray at the rate of 1 gal./1000 sq. ft. Do not contaminate food, feed, or drinking water.
Fly breeding areas			
Other farm buildings		2.0% (in oil or water)	Apply as a spray at the rate of 1/2 gal./1000 sq. ft. Do not contaminate food, feed, or drinking water.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIMETHYL 2,2,2-TRICHLORO-1-HYDROXYETHYL PHOSPHONATE*

PRINCIPAL FORMULATIONS: 50% & 80% soluble powder; 5.0% granular; 5.0% dust;
1.0% sugar baits: 8% solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		1.0	14 days. Apply only once between cuttings.
Artichokes		2.5	14 days.
Bananas	0.2 (0 in pulp after peel is removed)	0.5	12 days. Do not apply more often than once every 6 months.
Barley		1.0	Do not apply within 21 days of harvest. Do not graze treated fields or feed treated straw to dairy or meat animals.
Beans Dry Snap		1.5	14 days. Do not feed treated vines to meat or dairy animals.
Beets		1.5	28 days.
Brussels Sprouts		1.0	21 days.
Cabbage		1.0	21 days.
Carrots		1.5	28 days.
Cauliflower		1.5	21 days.
Collards		1.0	28 days.
Corn		2.0 (granular)	28 days. Do not feed treated forage or ensilage to livestock.
Cotton		2.0	Do not apply within 7 days of picking. Do not graze livestock in treated fields within 14 days after application.

*Proprietary names: "Dipterex", "Dylox", and "Neguvon"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIMETHYL 2,2,2-TRICHLORO-1-HYDROXYETHYL PHOSPHONATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Flax		1.0	21 days. Do not graze treated fields or feed treated straw to dairy or meat animals.
Kale		1.5	21 days.
Lettuce		1.0	28 days.
Lima beans		1.5	30 days. Do not apply more than twice per season.
Oats		1.0	Do not apply within 21 days of harvest. Do not graze treated fields or feed treated straw to dairy or meat animals.
Peppers		1.0 (spray) 1.25 (dust)	21 days.
Rutabagas		1.5	28 days. Do not use tops as food or feed.
Safflower		1.5	Do not apply after flowering stage.
Sugar Beets		1.5	14 days. Do not feed tops which have been treated within 28 days of harvest to livestock.
Tomatoes		1.0 (spray) 1.25 (dust)	21 days.
		1.5	Apply to tomatoes in the field immediately before harvest. Apply only to tomatoes to be cooked as in canning before consumption. Do not apply to tomatoes which are to be marketed fresh.
		5.0% (dust) 0.8% (spray)	Postharvest application to tomatoes as they are placed in containers. Apply only to tomatoes to be cooked as in canning before consumption. Do not apply to tomatoes which are to be marketed fresh.
Turnips		1.5	28 days. Do not use tops as food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIMETHYL 2,2,2-TRICHLORO-1-HYDROXYETHYL PHOSPHONATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables (All)		lbs. actual/A. 5.0% (dust)	Apply a band 6" wide and 1/8" deep along edge of field. Do not contaminate food crops.
Wheat		1.0	Do not apply within 21 days of harvest. Do not graze treated fields or feed treated straw to dairy or meat animals.
Animals:			
Beef cattle		1.0% (in water)	Apply to the point of run-off. Repeat as necessary. Do not apply within 14 days of slaughter. Do not apply to dairy animals.
		0.5 fluid oz. of 8% solution/ 100 lbs. of body weight	Pour uniformly along animal back. Do not apply to dairy animals. Do not apply to beef cattle within 21 days of slaughter. Do not apply more than 4 fluid oz. of 8% solution or 0.32 oz. act. Neguvon per animal.
Agricultural Premises:			
Barns		56.0 gms./ 1,000 sq. ft. (in water)	Apply as a bait spray to selected interior surfaces. Do not contaminate milk, milk handling equipment, feed or drinking water.
Dairy barns			
Hog pens			
Milk rooms			
Poultry houses			
Etc.		2.0%	Wet bait formulations. Apply 4 table-spoonfuls per 1,000 sq. ft. of floor space. Do not contaminate milk, milk handling equipment, feed or drinking water.
		0.1%	Wet bait formulation. Apply as a spot treatment by brushing, or spraying. Do not contaminate milk, milk handling equipment, feed, or drinking water.
		1.0%	Impregnated adhesive tape with bait. Apply at random on interior surfaces throughout building.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

O,O-DIMETHYL 2,2,2-TRICHLORO-1-HYDROXYETHYL PHOSPHONATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises: (cont.)		1bs. actual/A. 1.0%	Dry bait formulations. Apply 4 table- spoonfuls per 1000 sq. ft. of floor space. Do not contaminate milk, milking equipment, feed or drinking water.
Agricultural Premises: Barns (excluding dairy barns) Stock pens Etc.		90.7 mgs./ 1,000 sq. ft. (in water)	Spray or bait spray with sugar. Apply to floors, walls, ceilings, around doors, windows, and other areas where flies congregate. Remove animals before spraying. Do not treat portions of buildings where poultry feed. Do not contaminate feed, water, or milk handling equipment.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DINITRO-o-CYCLOHEXYL PHENOL

PRINCIPAL FORMULATIONS: 2% dust; 20% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Apples		1.6	Dormant application only. Use in Western U. S. only.
Apricots		1.6	Dormant application only. Use in Western U. S. only.
Citrus Fruits:			
Grapefruit	1	4.0	14 days.
Kumquats	1		
Lemons	1	2.0	12 days.
Limes	1		
Oranges	1		
Tangeloes	1		
Tangerines	1		
Pears		1.6	Dormant application only. Use in Western U. S. only.
Pecans		2.4	Dormant or delayed dormant application only.
Plums		1.6	Dormant application only. Use in Western U. S. only.
Prunes		1.6	Dormant application only. Use in Western U. S. only.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DINITRO-o-CYCLOHEXYLPHENOL
(DICYCLOHEXYLAMINE SALT)*

PRINCIPAL FORMULATIONS: 20% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples	1	3.0	15 days.
Apricots	1	3.0	15 days.
Cherries	1	3.0	15 days.
Citrus Fruits:			
Grapefruit	1	2.5	15 days.
Kumquate	1		
Lemons	1		
Limes	1		
Oranges	1		
Tangeloes	1		
Tangerines	1		
Nectarines	1	3.0	15 days
Peaches	1	3.0	30 days.
Pears	1	3.0	15 days.
Plums	1	3.0	15 days.
Prunes	1	3.0	15 days.
Quinces	1	3.0	15 days.

*Proprietary Name: "DN-111"

Issued: 10-1-65

337

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,3-p-DIOXANEDITHIOL-BIS-(O,O-DIETHYLPHOSPHORODITHIOATE)*

PRINCIPAL FORMULATIONS: 33% emulsifiable concentrate, 0.15% animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples	4.9	6.0	7 days. Do not apply more than 7 times after fruit starts to form. Do not feed pomace from treated fruit to meat or dairy animals.
Apricots		4.0	Do not apply after fruit begins to form.
Beans (grown for dried beans only)		0.5	Do not use on beans to be harvested green. Do not feed treated vines or hulls to livestock.
Cherries		4.0	Do not apply after fruit begins to form.
Cotton		0.5	Do not apply after bolls open. Do not graze dairy or meat animals in treated fields. Do not feed gin waste to livestock.
Grapes	2.1	0.75 (spray) 1.2 (dust)	14 days. Do not apply more than twice after grape fruit stems have begun to form.
		1.0 (spray)	Do not apply more than once after berries begin to form. Do not apply within 30 days of harvest.
Grapefruit	2.8	12.5	Do not make reapplication within 3 months if fruit is present during first application.
Lemons	2.8	12.5	Do not apply more than twice in one year. Do not make second application within 4 months after first application.
Limes	2.8	12.5	Do not apply more than twice in one year. Do not make second application within 4 months after first application.
Oranges	2.8	12.5	Do not make reapplication within 3 months if fruit is present during first application.

*Proprietary name: "Delnav"

2,3-p-DIOXANEDITHIOL-BIS-(O,O-DIETHYLPHOSPHORODITHIOATE)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Peaches		4.0	Do not apply after fruit begins to form.
Pears	4.9	6.0	7 days. Do not apply more than 7 times after fruit starts to form. Do not feed pomace from treated fruit to meat or dairy animals.
Plums		4.0	Do not apply after fruit begins to form.
Prunes		4.0	Do not apply after fruit begins to form.
Quinces	4.9	6.0	7 days. Do not apply more than 7 times after fruit starts to form. Do not feed pomace from treated fruit to meat or dairy animals.
Tangeloes	2.8	12.5	Do not make reapplication within 3 months if fruit is present during first application.
Tangerines	2.8	12.5	Do not make reapplication within 3 months if fruit is present during first application.
Walnuts		4.0	Do not apply after husks split.
Animals:			
Beef cattle	1.0	0.15%	Dip or spray. Do not dip animals under 3 months of age. Do not reapply within 2 weeks. Do not apply to dairy animals.
Sheep	(in fat)	(in water)	
Goats		0.15%	Apply freely to wounds, cuts, and abrasions. Do not apply to dairy animals.
Swine		(smear or gas propelled spray)	
Beef cattle	1.0	0.6%	Apply by pouring one quart on back and shoulders of each animal. Do not reapply within 30 days. Do not apply to dairy animals.
	(in fat)	(in water)	

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIPHENAMID*

PRINCIPAL FORMULATIONS: 50% and 80% wettable powder; 5% granules

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples		6.0	Apply to orchard floor after clean cultivation. Do not apply within 90 days of harvest. Do not graze livestock on treated areas.
Cabbage		6.0	Broadcast application at time of transplanting.
Cotton		4.0	Preemergence application at time of planting. Do not graze treated areas or feed treated plant parts to livestock.
Okra		5.0	Preemergence application at time of planting.
Peaches		6.0	Apply to orchard floor after clean cultivation. Do not apply within 90 days of harvest. Do not graze livestock on treated areas.
Peanuts		6.0	Apply at time of planting, soil cracking, or 7 days later.
		3.0	Postemergence application at cracking time or 7 days later. Used in combination with 1.5 lbs. of DNBP amine.
Peppers		5.0	Preemergence application to direct seeded crop.
			or Broadcast application within one month after transplanting or seeding.
Potatoes		6.0	Apply at time of planting or immediately after.
Soybeans		5.0	Preemergence application at time of planting. Do not graze treated areas or feed treated plant parts to livestock.

*N,N-dimethyl-2,2-diphenylacetamide

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIPHENAMID

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Strawberries		6.0	Apply to soil in interrows between edges of plastic mulch.
Sweet potatoes		6.0	Apply at time of planting or immediately after.
Tomatoes		6.0	Preemergence application to direct seeded crop. or Broadcast application within one month after transplanting or seeding.
All uses			Do not plant other food crops in treated soil within six months after last treatment. Do not use cover crop for food or feed within six months after last treatment. Small grain cover crops may be injured.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DI-n-PROPYL ISOCINCHOMERONATE*

PRINCIPAL FORMULATIONS: 2% in petroleum distillate; 10% emulsifiable concentrate
(All formulations usually in combination with other insecticidal ingredients.)
0.2% dust (with other ingredients)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals: Beef cattle Dairy cattle Goats Sheep Swine		2.0% in oil 2.0% in water 0.2% (dust) 2.0% in oil 0.4% in oil	Apply 2 ounces per animal daily as a mist spray. Do not wet the hide of animal. Apply 1 quart per animal as often as necessary. Formulated with other ingredients for use in a duster bag. Apply by rubbing devices. Formulated with other ingredients. Apply 1 ounce per animal to the face and head to repel face flies on cattle.
Agricultural Premises: Barns Dairy barns Feed rooms Hog pens Milk rooms Poultry houses Etc.		2.0% in oil or water 0.4% in oil	Apply to the point of run-off to all interior surfaces. Do not apply directly to nest in poultry houses. Do not contaminate milk, milk handling equipment, feed, or drinking water. Formulated with other ingredients. Apply as a space spray. Keep room closed for 15 minutes. Do not contaminate milk, milk handling equipment, feed or drinking water. Formulated with other ingredients.

*Proprietary name: "MGK R-326"

Issued: 10-1-66

343

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DI-n-PROPYL MALEATE ISOSAFROLE CONDENSATE*

PRINCIPAL FORMULATIONS: Used with pyrethrins and/or other ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises:		lbs. Actual/A.	
Barns		2.0% in oil, water, or pressurized sprays	Formulated with other ingredients. Do not contaminate milk, milk handling equipment, feed, or drinking water.
Dairy Barns			
Grain Bins			
Milk Rooms			
Poultry Houses			
Animal Shelters		5.0% (dust)	
Others			
Animals:			
Beef Cattle		0.7% in oil	Formulated with pyrethrins and/or other ingredients. Apply as a mist spray to outer hair at the rate of 2.0 oz. per animal the size of an adult cow. For lice control, apply at the rate of 2.5 oz. per animal the size of an adult cow and rub well into hair. Do not repeat lice treatment within 3 weeks.
Dairy Cattle			
Goats			
Sheep			
Swine			
		1.0% in water	Dip or spray. Thoroughly drench animals. Formulated with pyrethrins and/or other ingredients.
Bush & Vine Fruits:			
Blackberries	Exempt	0.5	No time limitations.
Blueberries	Exempt	0.5	No time limitations.
Boysenberries	Exempt	0.5	No time limitations.
Cranberries	Exempt	0.5	No time limitations.
Currants	Exempt	0.5	No time limitations.
Dewberries	Exempt	0.5	No time limitations.
Gooseberries	Exempt	0.5	No time limitations.
Grapes	Exempt	0.5	No time limitations.
Huckleberries	Exempt	0.5	No time limitations.
Loganberries	Exempt	0.5	No time limitations.

*Proprietary Name: "n-Propyl Isome"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIURON*

PRINCIPAL FORMULATIONS: 80% wettable powder; 28% liquid; 2%, 5%, 16%, and 20% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa Established	2	3.2	Dormant and semi-dormant application to established alfalfa (1 year or older).
Apples (orchards)	1	3.2	Apply as a directed spray to orchard floor during winter (Dec.-Feb.) or spring (Mar.-May), or as a split application in winter and spring. Total dosage should not exceed more than 3.2 lbs./acre/season.
Asparagus	7	3.2	Irrigated asparagus--apply during late Nov. or Dec. or Nonirrigated asparagus--apply 4 weeks before spears emerge or during early cutting period, and immediately following harvest. Total dosage should not exceed 4.8 lbs. per acre per season. Do not replant treated area to any crop within 2 years after last application.
Artichokes	1	3.2	Apply during late fall or early winter after last cultivation. Do not replant treated area to any crop within 2 years after last application.
Barley (winter)	1 (grain)	1.6	Preemergence application to drill planted barley. Do not replant to any crop within one year after last application.
	2 (hay, forage, straw)		
Birdsfoot Trefoil	2 (hay & forage)	1.6	Apply as dormant spray Oct. 15-Dec. 15. Do not replant to any crop within 1 year of last application.

*3-(3,4-dichlorophenyl)-1,1-dimethyl urea

350

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIURON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Blueberries	1	2.4	Apply directed spray in Jan. or Feb. (Reduce to 1.6 lbs./acre in split application in Oct.-Nov. and late spring). Do not replant to any crop within 2 years after last application.
Caneberries Blackberries Boysenberries Dewberries Loganberries Raspberries	1	2.4	Apply directed spray Jan. or Feb. (Reduce to 1.6 lbs./acre in split application in Oct.-Nov. and late spring). Do not replant to any crop within 2 years after last application.
Citrus:	1	6.0	Single application per year at any time of year under well established trees only. Do not spray fruit or foliage.
Grapefruit Oranges Tangeloes Tangerines	4 (in pulp)		
Grapefruit Lemons Oranges		3.2	Single application per year under well established trees only. Do not spray fruit or foliage.
		1.6	Split applications (2 per year) under well established trees only. Do not spray fruit or foliage.
		32.0	Apply to irrigation and drainage ditches when not in use, before growth starts or soon after mechanical cleaning, and before seasonal rains. If less than 4 in. rainfall before use, fill ditch with water, let stand 72 hrs., drain and waste water.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIURON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Corn Field	2.0 (forage)	0.8	Preemergence soil application.
	1.0 (grain)	0.8	Apply as a directed spray at time of last cultivation when crop is 20-30 inches high and weeds are less than 3 inches tall. Do not replant treated areas to any crop within 1 year except cotton, corn, and grain sorghum which may be planted the spring of the year following treatment.
Cotton	1.0 (cotton-seed)	1.6	Preemergence application. Do not plant crops other than cotton, corn, or grain sorghum on treated land in the spring following treatment.
			or Apply at time of last cultivation as a directed spray when cotton is 12 or more inches tall. Do not plant crops other than cotton, corn, or grain sorghum on treated land in spring following treatment. If both preemergence and early postemergence applications have been made, reduce dosage so that total dosage for season does not exceed 3.2 lbs./A.
		0.4	Early postemergence application as a directed spray when crop is 6 or more inches tall. Two applications as needed.
Gooseberries	1	2.0	Preplanting application in irrigated cotton.
		2.4	Apply in Jan. or Feb. as single application. (Reduce to 1.6 lbs./acre in split applications in Oct.-Nov. and Apr.-May). Direct spray away from bushes. Spring treatments should be at least 60 days prior to first picking.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIURON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Grapes	1.0	lbs. actual/A. 4.8	Single application per year under well established vineyards.
		1.6	Split applications in late fall or early spring under well established vineyards.
		9.6	Spot treatment. Apply in spring as a directed spray to established vineyards on heavy soils. Do not repeat application within 4 years.
Grass (seed crop)	2	1.6	Apply after October 15 to crop planted before April 1. Do not plant treated area to any other crop within 1 year after application.
		3.2	Apply between October 1 and November 15 to crop established one or more years. Do not plant treated area to any other crop within 2 years after application.
Macadamia nuts (established)		4.8	Apply as a directed spray to orchard floor immediately after harvest. Do not exceed 8 lbs. actual Diuron per acre per year. Do not graze livestock in treated orchards.
Oats (spring)	1 (grain)	1.2	Preemergence application to drill planted oats.
	2 (hay, forage, straw)		or Postemergence application within 6 weeks after planting. Do not replant to any crop within 1 year after last application.
Oats (winter)	1 (grain)	1.6	Preemergence application to drill planted oats. Do not replant to any crop within 1 year after application.
	2 (hay, forage, straw)		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIURON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Olives	1	1.6	Apply in Oct.-Nov. and repeat in March-April. Do not replant to any crop within 2 years of last application.
Pears	1	3.2	Apply as a directed spray to orchard floor during winter (Dec.-Feb.) or spring (Mar.-May), or as a split application in winter and spring. Total dosage should not exceed more than 3.2 lbs./acre/season.
Peas	1 (peas)	1.6	Preemergence application to drill planted peas mixed with winter oats. Do not replant to any crop within 1 year of last application.
	2 (hay, forage)		
Peppermint		2.4	Apply after last cultivation in spring prior to emergence of mint.
Pineapple	1	6.4	Apply immediately after planting.
		3.2	Apply after harvesting or plant crop.
		1.6	Postemergence of plant crop, apply over-all at 2 or more month intervals and before differentiation and interrow as needed. Do not apply more than 12.8 lbs./A. per plant crop.
Potatoes	1	0.8	Preemergence use only.
Red clover	2 (hay & forage)	1.6	Apply as dormant spray Oct. 15-Dec. 15. Do not replant to any crop within 1 year of last application.
Sorghum	1 (grain)	0.4	Postemergence directed spray after crop is 15 inches tall. Do not replant to any crop within 4 months of last application.
	2 (fodder & forage)		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIURON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Soybeans (seed crop)		0.2	Postemergence directed spray when crop is 3 or more inches tall. Do not use seed or forage for food, feed, or oil purposes.
Sugar cane	1	6.4	Apply after planting or after harvesting, of plant crop. Repeat with 2 sprays at half dosage, between rows as a directed spray or over emerged cane. Do not exceed 9.6 lbs. per crop cycle in Hawaii and Puerto Rico, or 4.8 lbs. in Florida.
		3.0	Make single application in fall after planting and before cane emerges; or in spring after shoving and offbarring before cane emerges or as directed spray if cane has emerged.
Tomatoes		0.8	Apply on soil as directed spray. No application after fruit begins to form.
Vetch	1 (seed)	1.6	Freemergence application to drill planted vetch mixed with winter oats. Do not replant to any crop within 1 year of last application.
	2 (hay, forage)		
Walnuts (English)		4.0	Single application in late fall or early winter to well established orchards (at least one year).
		2.4	Split applications. Apply in October or November and repeat in March or April. Avoid spraying foliage or fruit.
Winter oats (alone or mixed with peas or vetch)		1.6	Freemergence application to drill planted oats.

353b

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIURON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Winter wheat	2 (hay, forage, straw)	lbs. actual/A. 1.6	Preemergence application to drill planted wheat. or Postemergence fall application or spring application, after growth starts. Single application only. Do not replant treated areas to any other crop within 1 year after application, as injury to subsequent crop may result.
Irrigation ditches	1 (grain)	80	Apply only during noncrop season.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DNAP*

PRINCIPAL FORMULATIONS: 75% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Alfalfa		3.4	Dormant application to established alfalfa, or immediately after first cutting and before new growth starts. Do not graze animals on treated fields.
		2.5	Dodder control. Apply immediately after first cutting and before new growth starts.
Asparagus		1.7	Dormant application in late fall or early winter, after seed has been harvested.
Clover			
Ladino		2.5	Dodder control. Apply immediately after first cutting and before new growth starts. Do not graze livestock in treated fields.
Trefoil			
Orchards:			
Almonds		2.5	Dormant application to soil in early spring.
Apples			
Apricots			
Cashews			
Cherries			
Chestnuts			
Dates			
Figs			
Filberts			
Hazelnuts			
Hickory Nuts			
Nectarines			
Olives			
Peaches			
Pears			
Pecans			
Persimmons			

*4,6-Dinitro o-sec-arylphenol

Issued: 7-1-64

354

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DNBP*

PRINCIPAL FORMULATIONS: 40%, 45%, 53% and 55% emulsifiable concentrates;
22% granular formulation

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		2.2	Apply immediately after 1st cutting & before new growth starts. Do not graze treated areas or feed treated forage to livestock.
		2.4	After fall cutting.
		1.9	Dormant application when weeds are in rosette stage or less than 5 in. tall.
		1.9	Dodder control. Apply immediately after first cutting or before regrowth starts. Do not graze treated areas or feed treated forage to livestock.
Alfalfa (seed crop only)		2.5	Preharvest defoliation. Apply 3-6 days before harvest. Do not graze treated areas or feed treated forage to livestock.
Asparagus		1.3	Apply in late fall or early winter after seed is harvested.
Beans (field, lima, snap)		1.0	Preemergence application. Apply at least 1 day before crop emerges.
Bush fruits: Blackberries Blueberries Currants Gooseberries Raspberries		2.3	Apply in fall after harvest or in early spring before bloom as a directed spray.
Clovers: Trefoil, red & sweet		1.9	Postemergence application. Apply after 2-true-leaf stage. Do not graze treated areas or feed treated forage to livestock.

*4,6-dinitro-o-sec-butylphenol

357

Issued: 10-1-66

Replaces page issued 2-10-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DNBP

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Clovers: Dodder control		1.9	Apply immediately after 1st cutting & before regrowth starts. Do not graze treated areas or feed treated forage to livestock.
Corn		2.0 (with 2,4-DEP)	Preemergence application to time of planting or before corn emerges. Do not apply to light sandy soil or to shallow planted corn.
Cucurbits		1.0	Preemergence application. Apply at least 1 day before crop emerges.
Flax (seed crop only)		2.5	Preharvest defoliation. Apply 3-6 days before harvest. Do not graze treated areas. Do not use seed for food, feed, or oil purposes.
Grapes		2.8	Apply in spring before bloom or in fall after harvest as a directed spray between rows. Do not apply to young canes earmarked for bearing canes.
		1.9	Apply once or twice within 4 weeks after bloom as a directed spray to soil. Do not apply to grape vines.
Hops		1.25	Do not apply within 14 days of harvest. Do not make more than 4 applications per season. Do not spray entire bines. Do not apply to young plants in mature hop-yards or to "baby" yards.
Milo (seed crop only)		1.9	Preharvest defoliation. Apply 10-14 days before harvest. Do not graze treated areas or feed treated forage or seed to livestock.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DNBP

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Orchard floors Almonds Apples Apricots Cherries Citrus Dates Filberts Peaches Pears Pecans Plums Prunes Walnuts		lbs. actual/A. 1.9	Apply as directed coarse spray to ground cover. Do not apply to fruits or base of young trees. Do not graze livestock on treated areas.
Peanuts		1.5	Preemergence application.
		2.25	Apply at cracking time (5 to 7 days after planting) to first true leaves.
Peanuts (seed crop)		3.75 (with 7.5 lbs. Zytron)	Apply at time of emergence during early cracking stage as an overall spray. Do not use seed for food, feed, or oil purposes.
Peas		1.3	Postemergence. Apply when crop is 4-6 in. tall.
Potatoes		1.0	Preemergence application. Apply at least 1 day before crop emerges.
		2.5	Preharvest vine killing. Apply 10 days before harvest. Do not spray exposed tubers. Do not graze livestock on treated areas.
Seed crop only: Trefoil clover		2.5	Preharvest defoliation. Apply 1-2 days before harvest. Do not graze treated areas or feed treated forage to livestock.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DNBP

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Seed crop only: (cont.)			
Ladino clover		1.9	Preharvest defoliation. Apply 2-3 days before harvest. Do not graze treated areas or feed treated forage to livestock.
Red clover		1.9	Preharvest defoliation. Apply 6-8 days before harvest. Do not graze treated areas or feed treated forage to livestock.
Small seeded crops		0.625	Preemergence application. Apply at least 2 days before emergence.
Soybeans		1.5	Preemergence application only.
Soybeans (seed crop only)		2.5	Preharvest defoliation. Apply 2-5 days before harvest. Do not graze treated areas. Do not use seed for food, feed, or oil purposes.
Strawberry		1.9	Dormant application to middles and shoulders of established beds (Nov.-Jan.) In Pacific Coast States, apply as a dormant overall treatment.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DNBP (Amine Salts)*

PRINCIPAL FORMULATIONS: 36% and 50% triethanolamine salt (liquid); 51%, 53% and 57% ethanol and isopropanolamine salts (liquids); 4% and 16.5% granular formulations

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		3.0	Dormant or delayed dormant application only.
Apples		4.0	Dormant or delayed dormant application only.
		6.0	Apply to orchard floor during delayed dormancy. Do not allow livestock to graze on treated ground cover.
Barley (alone or interplanted with legumes)		1.5	Single application when crop is 3-6 inches tall.
Beans (field, kidney, navy, snap, lima, dry)		9.0	Preemergence application. Do not apply to light sandy soil.
		4.5	Postemergence application. Apply during emergence but not beyond crook stage.
Cherries		3.0	Dormant application only.
Corn (field, pop, sweet)		9.0	Preemergence application.
		4.5	Postemergence application. Apply when corn is in tight roll and not beyond 2 leaf stage.
Cucumber		3.0	Preemergence application. Plant seed at least 1 inch deep.
Currants		3.0	Dormant application only.
Flax (seed crop)		1.9	Preharvest defoliant. Do not feed treated forage to livestock.

*4,6-dinitro-o-sec-butylphenol (alkanol, ethanol, and isopropanolamine salts)

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DNBP (Amine Salts)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Grains (alone or interplanted with legumes)		1.5	Single application when grain is 3-6 inches tall.
Grapes		1.25	Dormant application as directed spray to ground under trellis.
		2.5	Dormant applications to wet the canes.
		10.5	California irrigating areas. Dormant application. Do not graze treated areas.
Forage Legumes: Alfalfa Clovers (birdsfoot trefoil, ladino, red, sweet)			
Seedling		1.5	Apply when seedlings have 2 or more true leaves. Do not graze livestock on treated areas before the first cutting.
Seed crop		1.9	Preharvest defoliant. Do not feed treated forage to livestock.
Established		3.0	Apply in late fall or early winter while crops are dormant. Do not graze live- stock on treated fields before the first cutting.
Milo (seed crops)		1.9	Preharvest defoliant. Do not feed treated forage to livestock.
Mint		9.0	Apply before mint breaks through ground or before mint is 1 inch tall.
Oats (alone or interplanted with legumes)		1.5	Single application when crop is 3-6 inches tall.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DNBP (Amine Salts)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Peaches		3.0	Dormant application only.
		10.5	California irrigating areas. Dormant application. Do not graze treated areas.
Peanuts		12.0	Preemergence application.
		6.0	Apply as plants begin to break through soil.
		3.0	Postemergence application before plants are 3 inches in diameter.
		1.5	Postemergence application as directed spray using shields, 2 applications up to 1 month after early cracking stage.
Pears		3.0	Dormant application only.
		10.5	California irrigating areas. Dormant application. Do not graze treated areas.
Peas		9.0	Preemergence application.
		2.25	Postemergence application when peas are 2-8 inches tall. Do not apply after flower buds are visible. Do not graze or feed forage or hay within 40 days after application.
Pecans		3.0	Dormant application only.
Plums		3.0	Dormant application only.
Potatoes		6.0	Preemergence application.
		2.25	Preharvest vine killing. Apply 10 days before harvest. Do not spray exposed tubers. Do not graze livestock on treated areas.
Prunes		3.0	Dormant application only.
Pumpkins		6.0	Preemergence application. Plant seed at least 1 inch deep.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DODECACHLOROCTAHYDRO-1,3,4-METHENO-2H-CYCLOBUTA (DC) PENTALENE*

PRINCIPAL FORMULATIONS: 0.075% bait

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Pasture and Cropland		3.4 grams actual per acre broad- cast	Do not make more than three applications during any 12 month period. Do not apply more than once during any two month period.
		0.02 grams actual per mound	Mount treatment for imported fire ant and Western harvester ant.
		4.25 grams actual/acre broadcast	Broadcast treatment for imported fire ant. Do not make more than 3 applica- tions in any 12 month period, nor more than one application in any 45 day period.

*Proprietary name: Mirex

370

Issued: 10-1-66

Replaces pages 369 and 370
issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DORMANT OILS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Grapes	Exempt	30.0	Dormant application only.
Huckleberries	Exempt	30.0	Dormant application only.
Loganberries	Exempt	30.0	Dormant application only.
Nectarines	Exempt	140.0	Apply during dormancy when temperature is above 40°F.
		100.0	Dormant or delayed dormant only.
Peaches	Exempt	140.0	Apply during dormancy when temperature is above 40°F.
		100.0	Dormant or delayed dormant only.
Pears	Exempt	248.0	Apply during dormancy when temperature is above 40°F.
		100.0	Dormant or delayed dormant only.
Pecans	Exempt	96.0	Apply during dormancy when temperature is above 40°F.
Plums	Exempt	140.0	Apply during dormancy when temperature is above 40°F.
		100.0	Dormant or delayed dormant only.
Prunes	Exempt	140.0	Apply during dormancy when temperature is above 40°F.
		100.0	Dormant or delayed dormant only.
Quinces	Exempt	248.0	Apply during dormancy when temperature is above 40°F.
		100.0	Dormant or delayed dormant only.
Raspberries	Exempt	30.0	Dormant application only.
Strawberries	Exempt	30.0	Dormant application only.
Walnuts	Exempt	96.0	Apply during dormancy when temperature is above 40°F.
Youngberries	Exempt	30.0	Dormant application only.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ENDOSULFAN*

PRINCIPAL FORMULATIONS: 23.5% emulsifiable concentrate containing 2 lbs. per gallon;
1% dust; 25% and 50% wettable powder; 10% aerosol;
10% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Alfalfa		lbs. actual/A. 3.0	Do not feed treated forage to dairy animals or animals being finished for slaughter. Do not use on forage to be sold commercially or shipped interstate.
Almonds		2.5	Do not apply after hulls split. Do not feed treated hulls to livestock.
Apples	2	9.0	Do not apply after petal fall.
		4.0	30 days. Do not apply more than twice during fruiting period. Do not feed pomace from treated apples to livestock.
		2.5	30 days. No limit on number of applications. Do not feed pomace from treated apples to livestock.
			or
			21 days. Do not apply more than 3 times during fruiting period. Do not feed pomace from treated apples to livestock.
Apricots	2	4.0	Foliar application. 30 days. Do not apply more than twice during fruiting season.
		0.75/ 100 gals. water	Spray all bark from ground to scaffold branches. Do not apply within 21 days of harvest.
			or
			Thoroughly wet trunk and main branches. Do not apply more than twice during fruiting season. Do not apply within 30 days of harvest.
Artichokes	2	1.5	Do not apply after buds start to form.
		1.0	7 days.

*6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepin-3-oxide

*Proprietary Name: Thiodan

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ENDOSULFAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Barley		0.5	Do not apply after heads begin to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Beans		1.0	Do not apply after pods start to form. Do not feed treated threshings to live-stock.
Beans (dry)		1.0	Do not apply within 40 days of harvest.
Blueberries		1.5	Do not apply after buds are well formed.
Broccoli	2	1.0	7 days.
Cabbage	2	1.0	7 days.
Cauliflower		0.75	Do not apply after edible parts start to form.
Cherries	2	2.5	Do not apply more than twice after shucks split. Do not apply within 21 days of harvest.
		3.0	Postharvest application only.
		0.75 lbs./ 100 gals. water	Spray all bark from ground to scaffold branches. Do not apply more than twice after shucks split. Do not apply within 21 days of harvest.
Clover		3.0	Do not feed treated forage to dairy animals or animals being fattened for slaughter. Do not use on forage to be sold commercially or shipped interstate.
Cotton		1.5	Do not apply after bolls open. Do not graze meat or dairy animals in treated fields.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ENDOSULFAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cotton (Cont.)		0.75	Do not apply after 25% of bolls are open. Do not graze meat or dairy animals in treated fields.
Cucumbers	2	1.0	No time limitations.
Eggplants	2	0.5	1 day.
		0.6 (dust)	7 days.
Filberts		2.0	No time limitations.
Grapes	2	1.5	7 days.
Lettuce (head)	2	1.0	Do not apply more than 3 times after thinning. Do not apply within 14 days of harvest. Remove outside leaves at harvest. Do not feed crop waste to livestock.
Macadamia nuts		15.0	No time limitations.
Melons	2	1.0 (spray) 1.5 (dust)	No time limitations.
Nectarines	2	4.0	Foliar application. 30 days. Do not apply more than twice during fruiting season.
		0.75/ 100 gals. water	Spray all bark from ground to scaffold branches. Do not apply within 21 days of harvest.
			or Thoroughly wet trunk and main branches. Do not apply more than twice during fruiting season. Do not apply within 30 days of harvest.
Oats		0.5	Do not apply after heads begin to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ENDRIN*

PRINCIPAL FORMULATIONS: 1.5% dust; emulsifiable concentrate containing
1.6 lbs. per gallon; 0.75% and 2.0% baits

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		0.25	Single application. Do not apply within 35 days of harvest or grazing. Do not apply after crop is 4 inches tall.
Almonds		2.0	70 days. Do not graze dairy animals or animals being finished for slaughter on treated forage.
Artichokes		0.75	30 days. Single application.
Asparagus			
Green		0.75%	Dry bait formulations. Apply to soil around plants. Do not apply around leafy vegetables. Do not contaminate plants.
White		(40 lbs./acre)	
Barley		0.25	45 days. Single application.
Birdsfoot Trefoil		0.125	Single application. Do not apply within 35 days of harvest or grazing. Do not apply after crop is more than 2 inches tall.
Clover		0.125	Single application. Do not apply within 35 days of harvest or grazing. Do not apply after crop is more than 2 inches tall.
Corn			
Field		0.5	Apply when southwestern corn borer egg masses are present on 25% of the stalks. Repeat application one week later. Do not feed forage or ensilage from treated fields to meat or dairy animals.

*1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro
1,4-endo-endo-5,8-dimethanonaphthalene

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ENDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Corn		lbs. actual/A.	
Field Sweet		0.25	Single application. Do not apply within 45 days of harvest or cutting for ensilage.
Cotton	0	0.7	Apply for control of cutworms. Do not graze dairy animals or animals being finished for slaughter on treated fields. Workers entering fields within 5 days after treatment should be protected.
		0.5	Do not graze dairy animals or animals being finished for slaughter on treated fields. Workers entering fields within 5 days after treatments should be protected.
Cotton (seed)		2.0 oz./100 lbs.	Do not use as food or feed.
Cucumbers	0	0.25	14 days.
Deciduous Fruits:			
Apples Apricots Cherries Nectarines Peaches Pears Plums Prunes Quinces		2.4	Post-harvest application to orchard floor in Oct. or Nov. Apply at 500 psi pressure. Do not cultivate prior to application or within 2 months thereafter. Do not treat areas where runoff will contaminate streams, ponds, or domestic water supplies. Do not graze orchards, cut forage for hay, or allow drop fruit to be utilized for any purpose. Post or otherwise prevent entry to treated area within 30 days after treatment.
Eggplants	0	0.25	14 days.
Grapes		0.5	<u>Dust formulations:</u> 30 days. <u>Spray formulations:</u> No application after buckshot stage or within 46 days of harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ENDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Lettuce		0.5	40 days. Do not apply after 5-6 leaf stage.
Melons		0.5	14 days.
Oats		0.25	45 days. Single application.
Peppers	0	0.5	14 days.
Potatoes	0	0.8	3 days.
Pumpkins		0.5	14 days.
Rye		0.25	45 days. Single application.
Sorghum:			
Forage Grain		0.25	Single application. Do not apply within 35 days of harvest or cutting for ensilage.
Squash			
Summer	0	0.25	14 days.
Strawberries		3.0	Postharvest application or during non-bearing years.
Sugar beets	0	0.4	60 days if tops are to be fed to animals; 20 days if tops are to be plowed under at harvest or are to be composted.
Sugarcane		0.25	45 days. 4-8 applications at 14-day intervals. 2.0% granular formulation only. Do not feed bagasse or field trimmings to livestock.
		0.5	45 days. 4 applications at 21 day intervals. Do not feed bagasse to livestock.
		0.5	Apply to seed pieces in open row.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ENDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Tomatoes	0	0.6	14 days.
		0.8	Bait formulations. 14 days.
Vegetables:			
Asparagus		0.8	Bait formulation for control of cutworms.
Beans			Do not apply around leafy vegetables or
Beets			green asparagus. Apply with equipment
Blackeyed peas			capable of delivering bait to soil
Cantaloupes			surface to avoid contamination of plant
Carrots			parts. Follow preharvest limitation
Corn			required for comparable dosage on each
Cowpeas			crop.
Cucumbers			
Garlic			
Horseradish			
Leeks			
Melons			
Okra			
Onions			
Parsnips			
Peas			
Peppers			
Pimientos			
Potatoes			
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			
Squash (summer)			
Squash (winter)			
Sweet potatoes			
Tomatoes			
Watermelons			
Wheat		0.25	45 days. Single application.
Winter squash		0.5	14 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ETHION*

PRINCIPAL FORMULATIONS: 47.7%, 75.0% emulsifiable concentrate; 2.2% emulsion;
8.0% granular formulation; 4.0% dust; 25% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	0.1 (almonds) 5.0 (almond hulls)	2.5 2.0	Do not apply after husk-split. 30 days. Do not apply more than once during fruiting period.
Apples	2.0	5.0 2.5	60 days. Do not apply more than 4 times during fruiting period. or 40 days. Do not apply more than twice during fruiting period. or 40 days. Do not apply more than 4 times during fruiting period. or 30 days. Do not apply more than 3 times during fruiting period. or 20 days. Do not apply more than twice during fruiting period.
Apricots		1.6	Delayed dormant application only.
Beans	2.0	0.5 (spray) 0.8 (dust) 1.0 (spray) 1.6 (dust) 1.5	2 days. Do not feed treated bean foliage to livestock. 4 days. Do not feed treated bean foliage to livestock. 10 days. Do not make more than one application after the edible parts have formed. Do not feed treated bean foliage to livestock.
Beans (seed)		1.0 oz./cwt. slurry treat- ment	Do not use as food or feed.
Cherries		2.5	Postharvest or dormant application only.

*O,O,O',O'-tetraethyl S,S'-methylene bis-phosphorodithioate

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ETHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Chestnuts		3.0 + 130 lbs. of oil in water	Dormant or delayed dormant application only.
Corn (field)		1.0	50 days. Do not apply more than once after ears form. Do not feed treated forage to livestock.
Cotton		1.6	Do not apply after bolls open. Do not graze dairy or meat animals in treated fields.
Cucumbers	0.5	0.5	No time limitations.
Eggplants	1.0	0.5	No time limitations.
Figs		2.0	Dormant application only.
Filberts		3.0 + 130 lbs. of oil in water	Dormant or delayed dormant application only.
Garlic	1.0	2.0	Apply to furrow at time of planting.
Grapes	2.0	1.25 (spray)	60 days.
			or
			30 days. Do not apply more than twice during fruiting period.
		2.25 (spray)	30 days. Single application.
Grapefruit	2.0	1.2 (dust)	30 days. Do not apply more than 3 times during fruiting period.
			or
			15 days. Do not apply more than twice during fruiting period.
Grapefruit	2.0	7.5	No time limitations. Do not repeat application within 90 days.
		10.0	30 days.
Lemons	2.0	7.5	21 days. Do not apply more than once per season.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ETHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Limes	2.0	7.5	Do not apply more than once per season. Do not apply within 21 days of harvest.
Melons	2.0	1.0 (spray) 1.6 (dust)	No time limitations.
Nectarines		1.5	Apply during dormancy or late dormancy. Do not apply after foliage or edible parts start to form.
Onions Green Bulb	1.0	2.0	Apply to furrow at time of planting.
Oranges	2.0	7.5	No time limitations. Do not repeat application within 90 days.
		10.0	30 days.
Peaches	1.0	1.75 (spray) 2.4 (dust)	30 days. Do not apply more than twice during fruiting season.
Peanuts		1.0	Do not feed forage from treated fields to dairy animals or animals being fin- ished for slaughter. Do not allow livestock to graze treated areas before or after harvest.
Pears	1.0	5.0	60 days. Do not apply more than 3 times after first cover spray.
		2.7	35 days. Do not apply more than twice during fruiting period.
		2.5	30 days. Do not apply more than 3 times after first cover spray.
Pecans		3.0 + 130 lbs. of oil in water	Dormant or delayed dormant application only.
Peppers	1.0	0.5 1.0	No time limitations. 21 days. Do not apply during fruiting period.
Pimentoes	1.0	0.5	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ETHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Plums	2.0	2.5	45 days. Do not apply more than twice during fruiting period.
		1.75	21 days. Do not apply more than 3 times during fruiting period.
Prunes	2.0	2.5	45 days. Do not apply more than twice during fruiting period.
		1.75	21 days. Do not apply more than 3 times during fruiting period.
Sorghum		0.5	Do not apply later than 10 days after first bloom except on sorghum grown only for seed. Some leaf burning may occur on phosphate sensitive varieties. Do not apply more than twice per growing season. Do not graze treated areas or use treated crops for silage.
Strawberries	2.0	1.0 (spray)	2 days.
		1.2 (dust)	
Summer squash	0.5	0.5	No time limitations.
Tangeloes	2.0	7.5	No time limitations. Do not repeat application within 90 days.
Tangerines	2.0	7.5	No time limitations. Do not repeat application within 90 days. Do not apply more than twice per season.
Tomatoes	2.0	0.5 (spray)	2 days.
		0.8 (dust)	
Walnuts		1.2	28 days. Do not apply more than once after fruit begins to form.
		3.2	Dormant or delayed dormant application only.
		2.5	Do not apply after husk-split. Do not apply more than twice during fruiting season.

ETHOXY ETHYL MERCURY CHLORIDE - HYDROXYETHYL MERCURY CHLORIDE MIXTURE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Potatoes		1 lb./25 gals. water	Preplanting seed piece treatment. Soak seed potatoes 30-60 seconds and dry before planting.
Sugarcane		1 lb./25 gals. water	Dip ends of cane before planting.

389

5-ETHOXY-3-TRICHLOROMETHYL-1,2,4-THIADIAZOLE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		0.38 lb. act./A. 0.047 lb. act./ 100 lbs. 0.1 lb. act./ seed for 1 acre	Apply in furrow at time of planting. Seed treatment. Do not use for food, feed or oil purposes. Plant box supplementary seed treatment.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

S-ETHYL DI-PROPYLTHIOLCARBAMATE*

PRINCIPAL FORMULATIONS: 78.0% liquid; 5.0%, 10.0%, 20.0% and 25.0% pelleted formulations; 75% emulsifiable concentrate; 10% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		4.0	Preplanting soil incorporation. No limitations.
		3.0	Preemergence or postemergence application by flood irrigation. No limitations.
Asparagus		3.0	Apply when beds are being worked before or after cutting season. Do not apply within 30 days of harvest.
Beans (dry, snap, and pole)		4.0	Preplant, preemergence, or postemergence soil incorporation. Do not apply after edible parts start to form. Do not graze or feed treated vines to livestock. Do not apply to lima beans, blackeyed peas, soybeans, or flat pod beans (except romano).
Carrots		3.0	Preplanting soil incorporation. Plant immediately.
Clovers		4.0	Preplant soil incorporation. No limitations.
Clovers (Ladino)		3.0	Postemergence application by flood irrigation. Do not apply within 45 days of harvest or grazing.
Corn (field & sweet)		4.0	Preplanting or preemergence soil incorporation. Do not plant seed deeper than 2 inches. Do not use in hybrid corn grown for seed.
Cotton		2.0	Apply at time of planting with subsurface applicator in bands 4 inches from seed row.
Flax		4.0	Preplant soil incorporation.
Lespedeza		4.0	Preplant soil incorporation. No limitations.

*EPTC: Proprietary name: "Eptam"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

S-ETHYL DI-PROPYLTHIOLCARBAMATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Peas (green processing)		2.0	Preplanting soil application.
Pineapples		6.0	Preplanting soil incorporation. Do not apply more than twice. Do not plant within 6 months after last application.
Potatoes		6.0	Preplant soil incorporation. or Emergence soil incorporation just after drag-off.
		4.0	Postemergence application as directed spray. Do not apply within 45 days of harvest.
Rice (levees)		3.0	Apply at time of making new borders or after weed growth is destroyed on old levees.
Safflower		3.0	Preplant soil incorporation. (Adjust dosage for band treatment).
Strawberries		5.0	Prebloom or postharvest application only.
Sugar beets		3.0	Preplanting soil incorporation immediately prior to planting. or Postemergence application at time of last cultivation. Do not apply within 2 months of harvest. For use east of Rocky Mountain only.
		2.0	Single application at time of last cultivation and during irrigation period. Do not apply within 2 months of harvest.
Sunflower		3.0	Preplanting soil incorporation. Plant crop the same day.
Sweet potatoes		7.5	Apply over freshly planted slips not later than one week after planting (adjust dosage for band application).

USDA Summary of Registered Agricultural Pesticide Chemical Uses

S-ETHYL DI-PROPYLTHIOLCARBAMATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Table beets		lbs. actual/A. 2.0	Preplanting soil incorporation.
Trefoil		4.0	Preplant soil incorporation. No limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ETHYL MERCURY PHOSPHATE

PRINCIPAL FORMULATIONS: 5% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz. Actual/bu.	
Barley		0.025	Seed treatment only. Do not use treated seed for food or feed.
Cotton		0.075	Seed treatment only. Do not use treated seed for food or feed.
Flax		0.075	Seed treatment only. Do not use treated seed for food or feed.
Grain		0.025	Seed treatment only. Do not use treated seed for food or feed.
Millet		0.025	Seed treatment only. Do not use treated seed for food or feed.
Oats		0.025	Seed treatment only. Do not use treated seed for food or feed.
Peas		0.05	Seed treatment only. Do not use treated seed for food or feed.
Rye		0.025	Seed treatment only. Do not use treated seed for food or feed.
Sorghum		0.025	Seed treatment only. Do not use treated seed for food or feed.
Wheat		0.025	Seed treatment only. Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ETHYL MERCURY p-TOLUENESULFONANILIDE*

PRINCIPAL FORMULATIONS: 2.3%, 7.7%, and 15.4% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz. actual/bu.	
Barley		0.04	Seed treatment only. Do not use treated seed for food or feed.
Cotton		0.35 oz. actual/ 100 lbs.	Seed treatment only. Do not use treated seed for food or feed.
Millet		0.04	Seed treatment only. Do not use treated seed for food or feed.
Oats		0.04	Seed treatment only. Do not use treated seed for food or feed.
Peas		0.14	Seed treatment only. Do not use treated seed for food or feed.
Rice		0.04	Seed treatment only. Do not use treated seed for food or feed.
Rye		0.04	Seed treatment only. Do not use treated seed for food or feed.
Safflower		0.23	Seed treatment only. Do not use treated seed for food or feed.
Sorghum		0.04	Seed treatment only. Do not use treated seed for food or feed.
Wheat		0.04	Seed treatment only. Do not use treated seed for food or feed.
		0.39 lb. actual/ acre	Apply to winter wheat in late fall, prior to snowfall.

*Active ingredient in the proprietary product "Ceresan M"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

M-(1-ETHYLPROPYL) PHENYL METHYLCARBAMATE M-(1-METHYLBUTYL) PHENYL METHYLCARBAMATE

PRINCIPAL FORMULATIONS: 10% granular [containing 7.5% m-(1-methylbutyl) phenyl methylcarbamate + 2.5% m-(1-ethylpropyl) phenyl methylcarbamate]

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Corn (field)		lbs. actual/A. 1.0	Band application based on 40 inch row spacing at time of planting. Apply to soil surface to cover seed row. Incorporate material slightly.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ETHYLENE DIBROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cucumbers	30	36-108	Allow 1-3 weeks to lapse between time of application and planting.
Cucurbits		36-54	Allow 1-2 weeks to lapse between time of application and planting.
Eggplant	50	36-108	Allow 1-3 weeks to lapse between time of application and planting.
Fruit tree sites:			
Almonds		180	Allow 1-3 weeks to lapse between time of application and planting.
Apples			
Apricots			
Avocado			
Bananas			
Cashews			
Cherries	25		
Chestnuts			
Dates			
Figs			
Filberts			
Grapefruit	10		
Guavas	10		
Hazelnuts			
Hickory Nuts			
Kumquats	10		
Lemons	10		
Limes	10		
Mangoes	10		
Nectarines			
Olives			
Oranges	10		
Papayas	10		
Passion fruit			
Peaches			
Pears			
Pecans			
Persimmons			
Plums	25		
Pomegranate			
Prunes	25		
Quinces			
Tangeloes	10		
Tangerines	10		
Walnuts			

Issued: 10-1-65

401

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ETHYLENE DIBROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Lettuce	30	36-108	Allow 1-3 weeks to lapse between time of application and planting.
Melons	75	36-108	Allow 1-3 weeks to lapse between time of application and planting.
Mushrooms		0.05 lbs. actual/cu.yd.	Casing soil treatment only.
Okra	50	108	Preplant application in muck soils only.
		36-72	Allow 1-2 weeks to lapse between time of application and planting.
Parsnips	75	36-108	Allow 1-3 weeks to lapse between time of application and planting.
Peanuts	25	56	Preplanting application only. Peanut vines and hulls from treated fields are not suitable as feed for meat or lactating animals. To avoid misuse of such hay or hulls do not sell it to another party or otherwise introduce it into commerce. Any forage crop grown on treated soil should not be used as feed for dairy animals or animals being finished for slaughter until 2 years after row treatment or 3 years after overall treatments.
Peas		36-77	Allow 1-2 weeks to lapse between time of application and planting.
Peppers	30	36-108	Allow 1-3 weeks to lapse between time of application and planting.
Pineapples	40	72-104	When using high dosage, allow 3 days to lapse between time of application and planting. Use 72 lbs./A. as a post-planting side dressing 6-8 inches on both sides of row.
		216	Preplanting soil application. Do not plant within 2 days after treatment.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ETHYLENE DIBROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Potatoes (sweet)	50	36-108	Allow 1-3 weeks to lapse between time of application and planting.
Potatoes (white)	75	90	For use only in Idaho and Wisconsin where postharvest fumigation with methyl bromide is not practiced. Apply as a split application in the fall of 60 lbs./A. followed in 10 days by 30 lbs./A.
		36-72	Allow 1-2 weeks to lapse between time of application and planting.
Seed beds		72	Allow 1-2 weeks to lapse between time of application and planting. Direct seeded crops in irrigated areas may be planted in 6-8 days.
Soybeans		55	Allow 1-2 weeks to lapse between time of application and planting.
Spinach		36-77	Allow 1-2 weeks to lapse between time of application and planting.
Squash	50	36-100	Allow 1-3 weeks to lapse between time of application and planting.
Strawberries	5	108	Allow 1-3 weeks to lapse between time of application and planting.
Sugar beets		36-77	Allow 1-2 weeks to lapse between time of application and planting.
Tomatoes	50	36-108	Allow 1-3 weeks to lapse between time of application and planting.
Turnips		36-77	Allow 1-2 weeks to lapse between time of application and planting.
<u>Commodity Fumigation</u>	ppm as inorganic bromides (organic bromides: exempt)		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ETHYLENE DIBROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Beans (dry)		8.0 lbs./ 1000 bu. + other fumigants	Expose to fumigation 24 hours.
Beans (string)	10	1.0 lb./ 1000 cu.ft.	Expose to fumigation for 2 hours.
Bitter melon	10	1.0 lb./ 1000 cu.ft.	Expose to fumigation for 2 hours.
Cantaloupes	10	1.0 lb./ 1000 cu.ft.	Expose to fumigation for 2 hours.
Cavandish Bananas	10	1.0 lb./ 1000 cu.ft.	Expose to fumigation for 2 hours.
Cherries	25 ppm (total bromides)	2.0 lbs./ 1000 cu.ft.	Single application only. Expose to fumigation for 2 hours.
Citrus	10	1.0 lb./ 1000 cu.ft.	Expose to fumigation for 2 hours.
Corn	50	9.0 lbs./ 1000 bu. + other fumigants	No limitations.
Cucumbers	10	1.0 lb./ 1000 cu.ft.	Expose to fumigation for 2 hours.
Fruits & Vegetables	ppm as inorganic bromides (organic bromides: exempt)	1.0 lb./ 1000 cu.ft.	Expose to fumigation for 12 hours.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ETHYLENE DIBROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Grain:			
Barley	50	7.2 lbs./	No limitations.
Corn	50	1000 bu. +	
Oats	50	other fumigants	
Popcorn	50		
Rice	50		
Rye	50		
Wheat	50		
Grain sorghum	50	11.0 lbs./ 1000 bu. + other fumigants	No limitations.
	ppm as inorganic bromides (organic bromides exempt)		
Guavas	10	1.0 lb./ 1000 cu.ft.	Expose to fumigation for 2 hours.
Honey comb		1.0 lb./ 1000 cu.ft.	Fumigation of stored comb and hives. Expose of fumigation for 20 hours.
Litchi fruit	10	1.0 lb./ 1000 cu.ft.	Expose to fumigation for 2 hours.
Litchi nuts	10	1.0 lb./ 1000 cu.ft.	Expose to fumigation for 2 hours.
Mangoes	10	1.0 lb./ 1000 cu.ft.	Expose to fumigation for 2 hours.
Nuts		0.6 lb./ 1000 cu.ft.+ other fumigants	Single application. Expose to fumigation for 12 hours.
Oranges	10	1.5 lbs./ 1000 cu.ft.	Expose to fumigation for 2 hours.
Papayas	10	1.0 lb./ 1000 cu.ft.	Expose to fumigation for 2 hours.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ETHYLENE DIBROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Peas (dry)		8.0 lbs./ 1000 bu. + other fumigants	Expose to fumigation 24 hours.
Peppers	10	1.0 lb./ 1000 cu.ft.	Expose to fumigation for 2 hours.
Pineapple	10	1.0 lb./ 1000 cu.ft.	Expose to fumigation for 2 hours.
Plums	25 ppm (total bromides)	2.0 lbs./ 1000 cu.ft.	Single application only. Expose to fumigation for 2 hours.
Zucchini squash	10	1.0 lbs./ 1000 cu.ft.	Expose to fumigation for 2 hours.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ETHYLENE DICHLORIDE

PRINCIPAL FORMULATIONS: Various formulations with other fumigating ingredients;
2.2% dust with other insecticidal ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		gals./1000 bu.	
Apples		0.25 lbs./tree	Apply to trunk and lower branches.
Apricots		0.25 lbs./tree	Apply to trunk and lower branches.
Beans			
Dry		6.0	Postharvest fumigation. Expose to fumigation for 24 hours. No time limitations.
Cherries		0.25 lbs./tree	Apply to trunk and lower branches.
Corn (in shuck)	Exempt	12.0	Postharvest fumigation. Expose to fumigation for 72 hours. No time limitations.
Grain:			
Barley	Exempt	7.5	Postharvest fumigation. No time limitations.
Corn	Exempt		
Oats	Exempt		
Popcorn	Exempt		
Rice	Exempt		
Rye	Exempt		
Wheat	Exempt		
Nectarines		0.25 lbs./tree	Apply to trunk and lower branches.
Peaches		0.25 lbs./tree	Apply to trunk and lower branches.
Peanuts		6.0	Postharvest fumigation. Expose to fumigation for 24 hours. No time limitations.
Pears		0.25 lbs./tree	Apply to trunk and lower branches.
Peas			
Dry		6.0	Postharvest fumigation. Expose to fumigation for 24 hours. No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ETHYLENE DICHLORIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Pecans	Exempt	gals./1000 bu.	
Plums		0.25 lbs./tree	Apply to trunk and lower branches.
Sorghum (Milo)		0.25 lbs./tree	Apply to trunk and lower branches.
Agricultural Premises:		8.5	Postharvest fumigation. No time limitations.
Mushroom Houses		87.5% spray	Apply by fog generators. Keep house tightly closed for 2 hours.
		2 ozs. of 2.2% dust/1000 cu. ft. of space	Apply by duster. Keep house closed for at least 2 hours.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

EUCALYPTUS OIL

PRINCIPAL FORMULATIONS: Technical material

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals: Beef Cattle Dairy Cattle		0.2%	Formulated with other ingredients. Apply locally to horn stumps after dehorning.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

FENURON*

PRINCIPAL FORMULATIONS: 25% pellets

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Pastures Rangelands		lbs. actual/A. 2 tablespoon- fuls of 25% pellets per square foot	Spot treatment for brush control. Apply to soil under brush. Do not apply when ground is frozen.

*3-phenyl-1,1-dimethylurea

412

Issued: 10-1-66

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

FERBAM*

PRINCIPAL FORMULATIONS: 76% and 80% wettable powder;
3.9%, 7.6%, 11.5% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	0.1	12.2	Petal fall.
Apples	7	11.4	7 days.
Apricots	7	7.6	21 days.
Beans	7	3.0	Do not apply within 4 days of picking. Do not feed treated plant parts to meat or dairy animals.
Blackberries	7	2.3	40 days.
Blueberries	7	5.7	40 days.
Boysenberries	7	3.0	40 days.
Broccoli	7	1.7	Plant bed treatment only.
Cabbage	7	2.3	Plant bed treatment only.
Cantaloupe	7	0.6	No time limitations.
Carrots	7	3.0	7 days if tops are to be used for food or feed.
Celery	7	3.0	No time limitations. Remove residues by stripping, trimming, and washing.
Cherries	7	5.7	No time limitations.
Citrus	7	15.0	Prebloom and 2/3 petal fall applications only.
Grapefruit			
Kumquats			
Lemons			
Limes			
Oranges			
Tangeloes			
Tangerines			

*Ferric dimethyl dithiocarbamate

413

Issued: 10-1-66

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

FERBAM

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cranberries	7	6.8	28 days after mid-bloom.
Cucumbers	7	0.8	No time limitations.
Cucurbits	7	0.8	No time limitations.
Currants	7	3.8	14 days.
Dates	7	1.9	7 days.
Dewberries	7	3.0	40 days.
Gooseberries	7	3.0	14 days.
Grapes	7	4.6	7 days.
Lettuce	7	18.4	Plant bed treatment.
		3.0	Florida only. Do not apply within 7 days of harvest. Remove residues by stripping and trimming.
Loganberries	7	3.0	Do not apply after fruit begins to form.
Nectarines	7	5.7	Immediately after bloom.
Peaches	7	7.6	21 days.
Pears	7	5.7	7 days.
Peppers	7	1.3	Plant bed treatment.
Plums	7	5.7	7 days.
Potatoes		3.0	No time limitations.
Prunes	7	5.7	7 days.
Quinces	7	5.7	7 days.
Raspberries	7	3.0	40 days.
Squash	7	0.8	No time limitations.
Strawberries	7	3.0	14 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

FUMARIC ACID

PRINCIPAL FORMULATIONS: 64% and 70% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Grain	Safe Chemical	lbs. actual/ton 1.40	Postharvest application. Used only in combination with other fungistats.
Hay	Safe Chemical	1.28	Postharvest application. Used only in combination with other fungistats.

422a

Issued: 10-1-66

Follows page 422

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ISOPROPYL N-PHENYL CARBAMATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Radishes (cont.)		4.4	Postemergence application when crop is well rooted.
		11.0	Preplanting application in late winter or early spring (4-6 weeks before planting).
Raspberries		8.0	Preplanting application. Till into soil prior to germination of seed and grasses.
		11.0	Apply during winter dormant period only. Direct spray to grasses.
Safflower		4.0	Preplanting soil incorporation, followed with furrow irrigation. or Preemergence application followed with irrigation.
Spinach		4.0	Preplanting application just before planting. Do not disc into soil.
		6.0	Preemergence application. or Postemergence application when spinach is in 2-4 leaf stage.
		11.0	Preplanting application in late winter or early spring (4-6 weeks before planting).
Strawberries		8.0	Dormant season application. Till into soil prior to germination of weeds and grasses.
Sugar beets		5.0	Preplanting application 1-2 days before planting. Disc into top 4 in. soil.
		6.0	Postemergence application when sugar beets are well rooted.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ISOPROPYL N-PHENYL CARBAMATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Turnips		lbs. actual/A. 3.0 4.4 11.0	Freemergence application. Postemergence application when crop is well rooted. Preplanting application in late winter or early spring (4-6 weeks before planting).
Vetch		4.4	Dormant season application in fall or winter when grasses are germinating.

454

Issued: 10-1-66

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

LEAD ARSENATE

PRINCIPAL FORMULATIONS: Basic and acid lead arsenate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(of combined lead)	lbs. actual/A.	
Almonds		32.0	Do not apply after husks open. Do not feed treated husks to, or graze treated groves by, livestock.
Apples	7	50.0	30 days. Remove excess residues at time of harvest. Do not graze livestock on treated areas.
Apricots	7	32.0	30 days. Remove excess residues at time of harvest. Do not graze treated forage by livestock.
Asparagus	7	16.0	Do not apply during cutting season.
Avocados	7	30.0	Remove excess residues at time of harvest.
Blueberries	7	15.0	Do not apply after edible parts start to form.
Broccoli		10.0	Do not apply after edible parts start to form.
Brussels sprouts		10.0	Do not apply after edible parts start to form.
Cabbage		10.0	Do not apply after edible parts start to form.
Cauliflower		10.0	Do not apply after edible parts start to form.
Celery	7	5.0	Do not apply after bunching or when plants are half grown.
Cherries	7	32.0	30 days. Remove residues at time of harvest. Do not graze treated forage by livestock.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

LEAD ARSENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(of combined lead)	lbs. actual/A.	
Cherries (cont.)	7	24.0	30 days (fresh market). 14 days (for processing).
		35-50	Dust only. 2 days.
Collards		10.0	Do not apply after edible parts start to form.
Cranberries	7	15.0	Do not apply after edible parts start to form.
Currants	7	6.0	Do not apply after edible parts start to form.
Eggplants	7	10.0	Remove excess residues at time of harvest.
Filberts		20.0	Do not apply after husks open.
Gooseberries	7	6.0	Do not apply after edible parts start to form.
Grapefruit:			
White Varieties	1	5.4	Reduce acidity. Apply spray 1 to 6 weeks after bloom.
Pink & Red Varieties		2.6	Reduce acidity. Apply spray 1 to 6 weeks after bloom.
Grapes	7	15.0	Do not apply after edible parts start to form.
Kale		10.0	Do not apply after edible parts start to form.
Kohlrabi		10.0	Do not apply after edible parts start to form.
Lettuce		10.0	Do not apply after edible parts start to form.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

LEAD ARSENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(of combined lead)	lbs. actual/A.	
Loganberries	7	15.0	Do not apply after edible parts start to form.
Mangoes	7	32.0	30 days.
Mustard		10.0	Do not apply after edible parts start to form.
Nectarines	7	32.0	30 days. Remove excess residues at time of harvest. Do not graze livestock on treated areas.
Peaches	7	32.0	30 days. Remove excess residues at time of harvest. Do not graze livestock on treated areas.
Pears	7	50.0	30 days. Remove excess residues at time of harvest. Do not graze livestock on treated areas.
Pecans		60.0	Do not apply after husks open. Do not graze livestock on treated areas.
Peppers	7	10.0	Remove excess residues at time of harvest.
Plums	7	32.0	30 days. Remove excess residues at time of harvest. Do not graze livestock on treated areas.
Prunes	7	32.0	30 days. Remove excess residues at time of harvest. Do not graze livestock on treated areas.
Potatoes		12.0	No time limitations.
Quinces	7	50.0	30 days. Remove excess residues at time of harvest. Do not graze livestock on treated areas.
Raspberries	7	15.0	Do not apply after edible parts start to form.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

LEAD ARSENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(of combined lead)	lbs. actual/A.	
Rutabagas		10.0	Do not use treated tops for food or feed.
Spinach		10.0	Do not apply after edible parts start to form.
Strawberries	7	8.0	Do not apply after edible parts start to form.
Tomatoes	7	10.0	Remove excess residues at time of harvest.
Turnips		10.0	Do not use treated tops for food or feed.
Walnuts		60.0	Do not apply after husks open. Do not graze livestock on treated areas.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

LINDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cowpeas		5.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
		1.25	Preplanting soil application.
Cowpeas			
Seed		2.0 oz/bu.	Do not use as food or feed.
Cranberries		0.6	Do not apply after blossoms open.
Cucumbers	10	0.75	Do not apply after blossoms open.
		0.5	1 day.
Cucumbers			
Greenhouse	10	4.0	Apply as a soil drench in greenhouses. Saturate soil around the base of young plants.
Currants		0.5	Do not apply after edible parts start to form.
Eggplants	10	0.5	Do not apply after edible parts start to form.
Field, Forage, Fiber & Grain Crops (non-root crops):			
Alfalfa		1.0	Preplanting soil application or at time of planting. Do not apply to land to be planted in root crops.
Barley			
Birdsfoot			
Trefoil			
Buckwheat			
Clover			
Corn	10		
Cotton			
Flax			
Grasses			
Hops			
Lespedeza			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

LINDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Field, Forage, Fiber & Grain Crops (nonroot crops): (cont.)		lbs. actual/A.	
Millet		1.0	Preplanting soil application or at time of planting. Do not apply to land to be planted to root crops.
Milo			
Oats			
Pasture Grass			
Popcorn			
Rice			
Rye			
Safflower			
Sorghum			
Soybeans			
Sugarcane			
Vetch			
Wheat			
Flax (seed)		2.0 oz./cwt.	Do not use treated seed for food or feed.
Gooseberries		0.5	Do not apply after fruit starts to form.
Grapes	10	1.0	Do not apply later than one month after bloom
Grass			
Pasture Range		5.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Guava	10	3.6	Apply just before blossoming or just after fruit is set.
Kale	10	0.75	Do not apply after edible parts start to form.
		1.0	Apply to soil around base of plants. Do not apply after edible parts start to form.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

LINDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Kohlrabi	10	lbs. actual/A. 0.75	Do not apply after edible parts start to form.
		1.0	Apply to soil around base of plants. Do not apply after edible parts start to form.
Lemons (in storage)	10	0.25 lbs./ 100,000 cu. ft.	Postharvest application. Vaporize 1.0 oz./2.5 minutes into air intake fan of standard ventilation system. Keep vents closed and water sprayers off for 2 hours following vaporization. Do not treat more than once every 2 weeks. Do not treat any lot more than 6 times.
Lespedeza		5.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Lettuce	10	1.25	Preplanting soil application.
		0.75	Do not apply to leaf lettuce after seedling stage. Do not apply to head lettuce after heads start to form.
		1.0	Apply to soil around base of plants. Do not apply to leaf lettuce after seedling stage. Do not apply to head lettuce after heads start to form.
		3.0	Preplanting soil application or at time of planting or transplanting.
Lima beans	10	0.6	Do not apply after pods start to form.
Lima beans (seed)		2.0 oz./bu.	Do not use as food or feed.
Mango	10	3.6	Apply just before blossoming or just after fruit is set.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

LINDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Melons	10	0.75	Do not apply after blossoms open.
		0.5	No time limitations.
Milo			
Seed		2.0 oz./bu.	Do not use as food or feed.
Mushrooms and Mushroom Houses	10	6.0 gms./ 16,000 sq. ft.	Dust. 7 days.
Mustard	10	0.75	Do not apply after seedling stage.
		1.0	Apply to soil around the base of plants. Do not apply after seedling stage.
Nectarines	10	2.0	60 days.
Oats		0.6	Do not apply after heads start to form.
Oats			
Seed		2.0 oz./bu.	Do not use as food or feed.
Okra	10	0.75	Do not apply after edible parts start to form.
Onions	10	1.0	Do not apply to green or spring onions.
		0.4	No time limitations.
Peaches	10	1.0	60 days.
		1.5	60 days. Apply to trunk and large branches from crotch to ground.
Pears	10	3.6	60 days.
Peas	10	0.3	Do not apply after pods start to form.
Peas			
Seed		2.0 oz./bu.	Do not use as food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

LINDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Vegetables (Non-root crops):			
Asparagus	10	0.25	Transplant water application at time of transplanting.
Beans	10		
Blackeyed Peas	10		Preplanting soil application or at time of planting. Do not apply to land to be planted in root crops.
Broccoli	10	2.0	
Brussels Sprouts	10		
Cabbage	10		
Cantaloupes			
Cauliflower	10		
Celery	10		
Collards	10		
Corn	10		
Cowpeas	10		
Cucumbers	10		
Eggplants	10		
Endive			
Kale	10		
Kohlrabi	10		
Lettuce	10		
Melons			
Mustard Greens	10		
Okra	10		
Peas	10		
Peppers	10		
Pimientos			
Pumpkins	10		
Spinach	10		
Squash (summer)	10		
Squash (winter)			
Swiss Chard	10		
Tomatoes	10		
Watermelons			
Walnuts		1.5	Do not apply after nuts are 1/2 inch in diameter.
Wheat		0.6	Do not apply after heads start to form.
Wheat			
Seed		2.0 oz./bu.	Do not use as food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

LINDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:		concentration in %	
Beef Cattle	7 in fat	0.03-0.06	Dip or spray. Do not dip animals within 60 days of slaughter. Do not spray within 30 days of slaughter. Treat calves only at the 0.03% level. Do not dip calves under 3 months of age.
		0.012 in water	Dip or spray. Do not apply to dairy animals. Do not apply to meat animals within 30 days of slaughter.
		3.0	Formulated with other ingredients. Apply as a spot treatment for screw-worm control.
		3.5	Formulated with other ingredients as an aerosol. Apply to ears of animal for tick control.
		1.0 (dust)	Do not apply within 30 days of slaughter.
		0.2 in oil	Formulated with certain other ingredients and applied by back-rubbers. Do not apply within 30 days of slaughter. Do not apply to dairy animals or animals under 6 months of age.
Cattle (all)	7 in fat	0.075 in water	For use under veterinary supervision in connection with official quarantine treatments.
Dairy Cattle		0.06 in water	Dip or spray. For use against sarcoptic mange and lice. Do not dip calves under 3 months of age. Do not apply more than twice in any one calendar year.
		3.0	Formulated with other ingredients. Apply as a spot treatment for screw-worm control.
		3.5	Formulated with other ingredients in liquid and pressurized dispensers. Apply to ears of animal for tick control.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

LINSEED OIL

PRINCIPAL FORMULATIONS: With various toxicants as animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals: Beef Cattle Dairy Cattle Goats Sheep Swine		10.0%	Formulated with other ingredients and applied locally as a screw-worm or ear tick remedy.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

LINURON*

PRINCIPAL FORMULATIONS: 50% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Carrots	1	2.0	Preemergence application or postemergence application when carrots are 2-6 inches tall. Do not replant to other crops within 4 months after treatment.
Corn (field)	1.0 (fodder or forage)	2.5	Preemergence soil application. Plant seed 1.75 inches deep.
		2.0	Postemergence directed spray when crop is 15 inches tall to layby. Do not apply within 60 days of harvest. Do not plant to other crops within 4 months after treatment.
Corn (sweet)	1.0 (fodder or forage)	2.5	Preemergence application. Plant seeds 1.75 inches deep.
		2.0	Postemergence application as a directed spray when corn is 15 inches tall or taller. Do not apply within 60 days of harvest. Do not plant to any crop within 4 months after treatment.
Cotton		1.5	Postemergence application as a directed spray at time of last cultivation when cotton is 20 or more inches tall. Do not plant to any crop within 4 months after treatment. Do not apply within 60 days of harvest. Do not graze treated fields. Do not apply on pima varieties.
Parsnips		1.5	Preemergence application. Do not apply to light soils. Do not replant treated area in other crops within 4 months after treatment. Do not use tops from treated area for food or for feed for dairy or meat animals.

*3-(3,4-dichlorophenyl)-1-methoxy-1-methyl urea

476

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

LINURON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Potatoes	1	lbs. actual/A. 2.0	Preemergence application, includes after dragoff or hilling. Plant crop at least 2 inches deep. Do not replant to other crops within 4 months after treatment.
Soybeans	1 (dry or succulent) (forage & hay)	3.0	Preemergence application. Do not plant crops other than corn or soybeans, within 4 months after treatment.

476a

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION*

PRINCIPAL FORMULATIONS: Emulsifiable concentrate containing 5 lbs. per gallon; 25% wettable powder; 4% and 5% dusts; 95% L.V. concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa	135	1.5	No time limitations. Apply as dust or diluted spray.
		2.0	7 days. Apply as diluted spray.
		2.5	7 days. Apply as dust.
		0.6	No time limitations. Apply as undiluted (ultra low volume) sprays.
Almonds		8.0	No time limitations.
Anise	8	1.5	7 days. Apply only to crops to be harvested fresh. Do not apply to crops grown for seed or oil.
Apples	8	15.0	3 days. May injure foliage on some varieties.
Apricots	8	10.0	7 days. Full coverage spray.
Artichokes		3.0	10 days.
Asparagus	8	1.25	1 day.
Avocado	8	9.0	7 days.
Barley	8	1.25	7 days. Apply as dust formulation or diluted spray.
		0.6	7 days. Apply as undiluted (ultra low volume) sprays.
Barley (seed)		2.0 oz./bu.	Do not use as food or feed.
Beans	8	1.75	1 day. Apply as dust or dilute spray.
		0.6	1 day. Apply as undiluted (ultra low volume) sprays.

*O,O-dimethyl dithiophosphate of diethyl mercaptosuccinate

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Beans (seed)		2.0 oz./bu.	Do not use as food or feed.
Beets	8	2.5	7 days.
Blackberries	8	4.0	1 day.
Blackeyed peas	8	2.5	3 days.
Blackeyed peas (seed)		2.0 oz./bu.	Do not use as food or feed.
Blueberries	8	2.5	1 day. Apply as dust or diluted spray.
		0.75	No time limitations. Apply as diluted sprays or undiluted (ultra low volume) sprays.
		1.0	No time limitations. Apply as dust.
Boysenberries	8	4.0	1 day.
Broccoli	8	3.0 (dust) 2.5 (spray)	3 days.
Brussels sprouts	8	2.5	7 days.
Cabbage	8	3.0 (dust) 2.5 (spray)	7 days.
Carrots	8	2.0	7 days.
Cauliflower	8	3.0 (dust) 2.5 (spray)	7 days.
Celery	8	1.5	7 days.
Cherries	8	8.0	3 days. May injury foliage of some varieties.
Chestnuts		5.0	Do not apply after shuck-split.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Clover	135	1.5	No time limitations. Apply as dust or diluted spray.
		2.0	7 days. Apply as diluted spray.
		2.5	7 days. Apply as dust.
		0.6	No time limitations. Apply as undiluted (ultra low volume) sprays.
Collards	8	2.5	7 days.
Corn	8	1.6	5 days. (Grain or forage use). Apply as dust.
Field	(forage)		
Pop	2	1.0	5 days. (Grain or forage use). Apply as diluted spray.
Sweet	(ear with husk removed)	0.6	5 days. (Grain or forage use). Apply as undiluted (ultra low volume) sprays.
		10.0 oz./1000 bu.mixed with grain	Postharvest treatment only.
		5.0 oz./1000 sq. ft. of grain surface	Postharvest treatment only.
Corn (seed)		2.0 oz./bu.	Do not use as food or feed.
Cotton	2 (cotton-seed)	4.0	No time limitations. Apply as dust formulations or diluted sprays.
		1.2	2 days. Apply as undiluted (ultra low volume) sprays.
		0.9	No time limitations. Apply as undiluted (ultra low volume) sprays.
Cotton (seed)		2.0 oz./bu.	Do not use as food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cowpeas	8	2.5	3 days.
Cowpeas (seed)		2.0 oz./bu.	Do not use as food or feed.
Cranberries	8	2.5	3 days.
Cucumbers	8	2.25 (dust) 1.75 (spray)	1 day.
Cucumbers (greenhouse)	8	0.1 lb./50,000 cu.ft.	1 day. Greenhouse aerosol formulation.
Currants	8	2.0	1 day.
Dandelion	8	2.5	7 days.
Dates	8	2.0	7 days.
Dewberries	8	4.0	1 day.
Eggplant	8	3.5	3 days.
Endive (escarole)	8	2.0	7 days.
Endive (greenhouse)	8	0.1 lb./50,000 cu.ft.	7 days. Greenhouse aerosol.
Figs	8	2.5 (spray)	3 days. Formulated with 2 gallons of molasses as a bait spray.
		2.0 (dust)	3 days.
Filberts		3.0	No time limitations.
Garlic	8	2.0	3 days.
Gooseberries	8	2.0	3 days.
Grapefruit	8	25.0	7 days. Do not apply during full bloom.
		0.75	3 days. Bait sprays.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Grapes	8	2.75	3 days. Emulsion may cause injury to foliage on some varieties.
Grass & Grass Hay	135 (grass & grass hay)	2.0	No time limitations. Apply as dust formulations.
		1.25	No time limitations. Apply as diluted sprays.
		0.8	No time limitations. Apply as undiluted (ultra low volume) sprays.
Guava	8	0.75	2 days.
Hops		1.25	7 days.
Horseradish	8	2.5	7 days.
Kale	8	3.0 (dust)	7 days.
		2.5 (spray)	
Kohlrabi	8	2.0	7 days.
Kumquats	8	25.0	7 days. Do not apply during full bloom.
		0.75	3 days. Bait spray.
Leeks	8	2.0	3 days. Bait spray.
Lemons	8	25.0	7 days. Do not apply during full bloom.
		0.75	3 days. Bait spray.
Lettuce	8	4.0 (dust)	14 days (leaf lettuce); 7 days (head lettuce).
		2.0 (spray)	
Lettuce (greenhouse)		0.1 lb./50,000 cu.ft.	10 days. Greenhouse aerosol.
Limes	8	25.0	7 days. Do not apply during full bloom.
		0.75	3 days. Bait spray.
Lentils		1.0	7 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Loganberries	8	4.0	1 day.
Macadamia nuts		15.0	No time limitations.
Mangoes	8	0.75	2 days. Bait spray.
Melons	8	2.25 (dust) 1.75 (spray)	1 day.
Mushrooms	8	1.6	1 day.
Mustard	8	3.0 (dust) 2.5 (spray)	7 days.
Nectarines	8	10.0	7 days. Full coverage spray.
Oats	8	1.25	7 days. Apply as dust formulations or diluted sprays.
		0.6	7 days. Apply as undiluted (ultra low volume) sprays.
Oats (seed)		2.0 oz./bu.	Do not use as food or feed.
Okra		1.5	Do not apply after pods form.
Onions (including green onions)	8	2.0	3 days for green onions.
Oranges	8	25.0	7 days. Do not apply during full bloom.
		0.75	3 days. Bait spray.
Papayas		1.25 lbs. act./ 100 gals. water	Thorough application. Repeat as necessary. Do not apply within 30 days of harvest.
Parsley	8	2.0	21 days.
Parsnips	8	2.0	7 days.
Passion fruit	8	0.75	2 days. Bait spray.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Peaches	8	9.0	7 days. Full coverage spray.
Peanuts	8 (on shelled peanuts) 0 (on hay)	8 oz. actual per 1000 sq. ft. of surface	Apply in and around warehouse before peanuts are placed in storage.
		25 oz. actual per 15 tons of peanuts in shell	Apply to peanuts as they are placed into storage.
		7 oz. actual per 1000 sq. ft. of surface	Apply to surface of peanuts after they are stored.
		1.0	30 days.
Peanuts (seed)		2.0 oz./bu.	Do not use as food or feed.
Pears	8	15.0	1 day.
Peas	8	2.5	3 days.
Peas Hay Vines	8	1.25	7 days if forage is to be fed to live- stock.
Peas (seed)	8	2.0 oz./bu.	Do not use as food or feed.
Pecans	8	12.5	No time limitations.
Peppers	8	1.5	3 days.
Peppermint	8	1.0	7 days.
Pineapples	8	5.0	7 days.
Potatoes	8	3.0	No time limitations.
Plums	8	10.0	3 days. Full coverage spray.
Prunes	8	10.0	3 days. Full coverage spray.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Pumpkins	8	2.0	3 days.
Quince	8	15.0	3 days.
Radishes	8	2.0	7 days.
Radishes (greenhouse)	8	0.1 lb./50,000 cu. ft.	1 day. Greenhouse aerosol formulation.
Raspberries	8	4.5	1 day.
Rice	8	1.6	7 days. Apply as dust or diluted spray.
		0.6	7 days. Apply as undiluted (ultra low volume) sprays.
Rice (seed)		2.0 oz./bu.	Do not use as food or feed.
Rutabagas	8	2.5	3 days.
Rye	8	1.25	7 days. Apply as dust formulations or diluted sprays.
		0.6	7 days. Apply as undiluted (ultra low volume) sprays.
Rye (seed)		2.0 oz./bu.	Do not use as food or feed.
Safflower		1.25	3 days. Apply as dust or diluted spray.
		0.6	3 days. Apply as undiluted (ultra low volume) sprays.
Salsify	8	2.0	7 days.
Shallots	8	2.0	3 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Small Grains:			
Barley	8	10.0 oz./1000	Postharvest storage treatment only.
Oats	8	bu. mixed	
Rice	8	with grain	
Rye	8		
Sorghum	8	5.0 oz./1000	Postharvest storage treatment only.
Wheat	8	sq. ft. of grain surface	
Small Grains (seed)		2.0 oz./bu.	Do not use as food or feed.
Spearmint	8	1.0	7 days.
Sorghum (grain)	8	10.0 oz./1000 bu. mixed with grain	Postharvest storage treatment only.
		5.0 oz./1000 sq. ft. of grain surface	Postharvest storage treatment only.
Sorghum (seed)		2.0 oz./bu.	Do not use as food or feed.
Soybeans		1.75	1 day of harvest for forage use. Apply as dust or diluted spray.
		2.0	3 days. Apply as dust or diluted spray.
		0.6	7 days of harvest for forage use. Apply as undiluted (ultra low volume) sprays.
Soybeans (seed)		2.0 oz./bu.	Do not use as food or feed.
Spinach	8	2.0	7 days.
Squash			
Summer	8	2.25 (dust)	1 day.
Winter		1.75 (spray)	
Strawberries	8	2.0	3 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Sugarbeets		2.5	7 days if tops are to be used as food or feed. Apply as dust or diluted spray.
		0.6	7 days if tops are to be used as food or feed. Apply as undiluted (ultra low volume) sprays.
Sweet potatoes		2.0	No time limitations.
Swiss chard	8	2.0	7 days.
Tangeloes	8	25.0	7 days. Do not apply during full bloom.
		0.75	3 days. Bait spray.
Tangerines	8	25.0	7 days. Do not apply during full bloom.
		0.75	3 days. Bait spray.
Tomatoes	8	3.5	5 days. Apply as dust or diluted spray.
		2.0	1 day. Apply as dust or diluted spray.
		0.6	1 day. Apply as undiluted (ultra low volume) sprays.
Tomatoes (greenhouse)		0.15 lbs./ 50,000 cu.ft.	15 hours.
Turnips (including tops)	8	3.0	3 days.
Vegetables:			
Asparagus	8	3.0 (dust)	Apply uniformly over soil around base of plants. (Worked into soil or left on surface).
Beans	8		
Beets	8		
Blackeyed peas	8		
Broccoli	8		
Brussels sprouts	8		
Cabbage	8		
Cantaloupes	8		
Carrots	8		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Vegetables (cont.)			
Cauliflower	8	3.0 (dust)	Apply uniformly over soil around base of plants. (Worked into soil or left on surface).
Celery	8		
Collards	8		
Corn	8		
Cowpeas	8		
Hay			
Peas			
Vines			
Cucumbers	8		
Eggplants	8		
Endive	8		
Garlic	8		
Horseradish	8		
Kale	8		
Kohlrabi	8		
Leeks	8		
Lettuce	8		
Melons	8		
Mustard greens	8		
Okra			
Onions	8		
Parsnips	8		
Peas	8		
Hay			
Peas			
Vines			
Peppers	8		
Pimentos	8		
Potatoes	8		
Pumpkins	8		
Radishes	8		
Rutabagas	8		
Salsify	8		
Shallots	8		
Spinach	8		
Squash (summer)	8		
Squash (winter)	8		
Sweet potatoes			
Swiss chard	8		
Tomatoes	8		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Vegetables (cont.)			
Turnips	8	3.0 (dust)	Apply uniformly over soil around base of plants. (Worked into soil or left on surface).
Roots			
Tops			
Watermelons	8		
Vetch		2.0	7 days (harvest or pasturing).
Walnuts	8	12.5	No time limitations.
Water Cress	8	2.0	7 days.
Water Cress (greenhouse)		0.1 lb./ 50,000 cu. ft.	7 days. Greenhouse aerosol.
Wheat	8	1.25	7 days. Apply as dust formulations or diluted sprays.
		0.6	7 days. Apply as undiluted (ultra low volume) sprays.
Wheat (seed)		2.0 oz./bu.	Do not use as food or feed.
Animals:			
Beef cattle	4 in meat & meat by- products	1.25% (in water)	Dip or spray. Do not apply to lactating dairy animals.
		2.0% (in oil)	Apply by back-rubbers. Do not apply to dairy animals.
		5.0% (dust)	Apply directly to animals. Do not apply to lactating dairy animals.
Dairy cattle (non- lactating)	0 in milk	1.25% (in water)	Dip or spray. Do not spray during lactation or within two weeks of freshening. Do not dip within 2 months of freshening. Do not apply to calves under one month of age.
		5.0%	Thorough application. Do not apply during lactation or within 2 weeks of freshening.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Dairy cattle (lactating)	0 in milk	lbs. actual/A. 5.0% (dust) 1.5 oz./head or 4.0% (dust) 2.0 oz./head	Apply to back and neck of animals. Do not apply within 5 hours of milking or during milking. Repeat application at 10-14 day intervals if needed.
Poultry	4 in meat & meat by- products 0 in eggs	0.7% (in water) 4.0% (dust)	Spray or dip. No time limitations. Thorough application directly to birds. No time limitations.
Goats Sheep	4 in meat & meat by- products	0.6% (in water) 5.0% (dust)	Dip or spray. No limitation. Do not apply to milk goats. Thorough application to animal by hand or power duster. Do not apply to lactating milk goats.
Swine	4 in meat & meat by- products	0.6% (in water) 0.5% (in oil) 5.0% (dust)	Dip or spray. No time limitations. Apply by rubbing devices. Thorough application. No time limitations.
Agricultural Premises including:			
Barns		2.5% (in water)	Apply liberally as a residual spray. Do not contaminate milk, milking equipment, feed, or drinking water.
Dairy Barns			
Barnyards			
Milk rooms		1.0%	Bait spray. Spot application by spraying, or brushing. Do not contaminate milk, milking equipment, feed, or drinking water.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises (cont.)	4 (in meat & by products of cattle)	lbs. actual/A.	
		1.25%	Wet bait formulation. Do not contaminate feed, milk, milking equipment, or drinking water.
		3.5%	Dry bait formulation. Apply 3 1/4 gms. per 1000 sq. ft. of floor space. Do not contaminate milk, milking equipment, feed, or drinking water.
Feed Lots & Holding Pens for Beef Cattle		0.6	Apply by aircraft as undiluted (ultra low volume) sprays. May be applied with beef cattle present. No time limitations.
Poultry Houses		0.25 lbs./ 100 sq. ft.	Dust or spray. Apply to litter, floor, and walls.
		4.0%	Roost paint or surface spray. Apply one pint per 150 feet of roost.
Poultry Ranges		1.1	Full-coverage application 1 day prior to placing poultry on range. Repeat every 2-3 weeks. Do not contaminate feed or drinking water.
Grain Bins Feed Rooms Etc.		2.5%	Apply liberally as a residual spray. Do not contaminate feed.
Greenhouse		0.15 lbs. 50,000 cu.ft.	Greenhouse aerosol formulation.
General:			
Ant Mounds		0.1%	Apply liberally to mounds. Saturate and mix loose earth in top of mound.
Fogging		1.5%	Formulated in combination with other insecticides. Apply by fog generators.
Uncultivated Land		2.0	Apply to ditchbanks, wasteland, idle land, etc. for grasshopper control.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Uncultivated Land (cont.)		lbs. actual/A. 2.0	Wet or dry bait formulations. Apply 0.5 pounds per 1000 sq. ft. Do not apply in areas accessible to babies and small children.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MALEIC HYDRAZIDE*

PRINCIPAL FORMULATIONS: 58% liquid; 48.3% wettable powder. Used in sodium and diethanolamine salts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Beans green dry		4.0	Preplant application in spring, plow 4-8 days later, prepare land and plant immediately.
Beets		4.0	Preplant application in spring, plow 4-8 days later, prepare land and plant immediately.
Citrus (young non- bearing trees in Florida)			
Grapefruit Kumquats Lemons Limes Oranges Tangeloes Tangerines		3.0	Induce dormancy. Spray between Nov. 1-15. Repeat treatment 6-8 weeks later. Do not spray trees within the year in which fruit to be harvested is set.
Corn field sweet		4.0	Preplanting application in spring, plow 4-8 days later, prepare land and plant immediately.
Lima beans		4.0	Preplant application in spring, plow 4-8 days later, prepare land and plant immediately.
Onions			
Dry bulb	15	2.0	Sprout inhibitor. Apply 1-2 weeks before harvest.
Pasture		15.0	Onion and garlic control. Apply in spring or fall when 95% bulbs have started growth. Do not pasture livestock, in, or cut hay from treated areas.

*1,2-dihydropyridazine-3,6-dione; MH
Issued: 10-1-65

492

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MANEB

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cherries		8.0	Petal fall.
Cotton		3.5	Seed row treatment at planting time only.
Cranberries	7	7.5	Do not apply later than 4 weeks after mid-bloom.
		4.8	30 days.
Cucumbers	7	3.0	No time limitations.
Eggplant	7	3.0	No time limitations.
Endive	10	2.4 (spray)	7 days.
		3.2 (dust)	Remove residues by washing or other effective means.
Figs	7	3.0	10-20 days.
Grapes	7	1.5	7 days.
		4.0	Do not apply later than 10 days after bloom.
Kohlrabi	10	2.8	No time limitations.
Lettuce	10	2.4 (spray)	7 days.
		3.2 (dust)	Remove residues from head lettuce by stripping and trimming, and from leaf lettuce by washing or other effective means.
Melons	7	4.0	No time limitations.
Nectarines	10	10.0	14 days.
Onions	7	3.0	No time limitations.
Papaya	10	2.4	No time limitations.
Peaches	10	10.0	2 days. If applied within 14 days of harvest, remove residues by brushing.

494

Issued: 10-1-66

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MANEB

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Peanuts		1.6	No time limitations. Do not feed treated peanut hay to livestock.
Peppers	7	3.0	No time limitations.
Plums		8.0	Petal fall.
Potatoes	0.1	4.0	No time limitations.
Potatoes (seed pieces)		1.0 lb./10 gals. of water	Dip seed pieces or whole tubers.
Prunes		8.0	Petal fall.
Pumpkins	7	2.4	No time limitations.
Raspberries		3.2	Do not apply after bloom.
Rhubarb (greenhouse)	10	2 lbs. 70% w.p. per 100 gals.	No time limitations.
Spinach	10	2.75	7 days. Remove excess residues by washing.
Squash (summer & winter)	7	3.0	No time limitations.
Sugar beets	45 (tops)	2.6	Foliage application. Do not apply within 10 days of harvest. Do not feed treated tops to livestock.
		1.6	Do not apply within 1 $\frac{1}{4}$ days of harvest. No restriction on feeding tops.
Sweet corn	7 (kernel & cob)	2.4	No time limitations. Do not feed treated forage to livestock.
Tomatoes (field)	7	4.0	No time limitations.
Tomatoes (greenhouse)	7	4.0	To avoid damage, do not use on tender young plants.
Watermelons	7	4.0	No time limitations.

495

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MANGANOUS DIMETHYLDITHIOCARBAMATE
PLUS MERCAPTOBENZOTHAZOLE

PRINCIPAL FORMULATIONS: Various proprietary wettable powder and dust formulations* with one or more of the following fungicides: dichlone, ferbam, thiram, zineb

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples	7.0 as man- ganous diethyl- dithio- carbamate	2.0 lbs./ 100 gals. water (spray)	No time limitations.
	0.1 mercap- tobenzo- thiazole	50 lbs./A. or 2 lbs./ tree (dust)	No time limitations.
Pears		Mixture used at 1.5 lbs./100 gals. water	Do not apply after petal fall. North- western states only.

*Proprietary name for entire range of formulations: "Niacide"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

N-(MERCAPTOMETHYL) PHTHALIMIDE S-(O,O-DIMETHYL PHOSPHORO DITHIOATE)*

PRINCIPAL FORMULATIONS: 50% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apricots Nectarines Peaches Plums Prunes		lbs. actual/A. 4.0	Apply up to bloom. Do not graze live- stock in treated orchards.
Pears		6.0	Apply up to bloom. Do not graze live- stock in treated orchards.

*Proprietary name: "Imidan"

Issued: 10-1-66

496a

Follows page 496

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHOXYCHLOR

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals: (Cont.)		lbs. actual/A.	
Beef cattle	3 (in fat)	50.0% dust	Thorough application to animal. Work dust into hair.
		2% dust (with other ingredients)	Apply in dust bags suspended in loafing areas and in water and feeding paths at the rate of one 12 1/2 lb. bag per 10-15 animals. Do not refill bags more often than every 4 weeks. Do not apply to animals being finished for slaughter. Do not contaminate feed or water.
		1.5% in water	Spot treatment for control of tail lice. Thoroughly treat infested area.
Dairy cattle (Lactating)	0 (in milk)	5 grams in powdered form	Apply on the back and neck of each animal. Rub powder into hair with the hand. Repeat every 3 weeks if necessary.
Dairy cattle (Non- lactating)	0 (in milk)	1.0% in water	Dip or spray. Thoroughly wet animals. Two quarts per head for large animals and proportionally less for smaller ones. Do not apply during lactation or within 2 weeks of freshening. Do not dip calves under one month of age.
		15.0% dust	Thorough application to animals. Work dust into hair. Do not apply during lactation or within 2 weeks of freshening.
Poultry		1.0% in water	Dip or spray. Thoroughly drench birds. No time limitation.
		15.0% dust	Thorough application to birds. No time limitation.
Goats Sheep	3 (in fat)	1.0% in water	Dip or spray. Thoroughly wet animals. Do not apply to lactating goats.
		0.5% in oil	Mist spray application at 2.0 oz. per animal. Do not wet the hide. Do not apply to lactating goats.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHOXYCHLOR

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals: (cont.)		lbs. actual/A.	
Goats	3 (in fat)	50% dust	Thorough application to animal. Work dust into wool. Do not apply to lactating goats.
Sheep	3 (in fat)		
Swine	3 (in fat)	5.0% in oil	Apply by rubbing devices.
		1.0% in water	Dip or spray. Thoroughly wet animals.
		0.5% in oil	Liberal application to animals.
		15.0% dust	Liberal application to animal and pens.
Agricultural Premises:			
Barns		0.8 lbs./ 1,000 sq.ft.	Residual surface spray on interior and exterior surfaces. Do not contaminate milk, feed, or drinking water. Exclude dairy animals while treating barns.
Dairy barns			
Poultry houses			
Milk rooms			
Animal pens			
Farm buildings		2.0 oz./ 1,000 cu.ft.	Formulated with other ingredients as a space and contact spray. Exclude dairy cattle from building before application. Do not contaminate milk, feed, or drinking water.
Etc.			
Grain bins	2 (on grain)	0.8 lbs./ 1,000 sq.ft.	Empty grain bin treatment only.
Greenhouses		0.8 oz./ 50,000 cu.ft.	Greenhouse aerosol formulation.
Mushroom Houses	14 (on mush- rooms)	150 mg./sq.ft. in water	Apply spray to beds, walls, posts, etc. when mushrooms are not present.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHOXYCHLOR

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
General		lbs. actual/A.	
Outdoor Fogging		0.2	Formulated with other ingredients and applied by fogging machines.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2-METHOXY-3,6-DICHLOROBENZOIC ACID

PRINCIPAL FORMULATIONS: 49% & 57% liquid (dimethylamine salt)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. acid equiv. per acre	
Barley (spring seeded)		0.094	Postemergence application during 2-5 leaf stage. North Dakota and Montana only. Do not graze or feed forage to dairy animals before harvest. Do not graze other livestock for 30 days after treatment.
Barley (fall seeded)		0.25	Postemergence application in spring before joint stage. Do not graze or feed forage or threshings to livestock.
Corn (field)		1.0	Preemergence application before weeds emerge. Do not graze treated areas. Do not harvest for dairy animal feed prior to ensilage (milk stage). Do not apply to sandy soils low in organic matter.
		0.25	Postemergence application as an overall spray before corn is 36 inches high. Do not graze treated areas. Do not harvest for dairy animal feed prior to ensilage (milk stage).
Wheat (spring seeded)		0.25	Postemergence application during 2-5 leaf stage. North Dakota and Montana only. Do not graze or feed forage to livestock.
Wheat (fall seeded)		0.25	Postemergence application in spring before joint stage. Do not graze or feed forage or threshings to livestock.
Oats (spring seeded)		0.125	Postemergence application during 2-5 leaf stage. North Dakota and Montana only. Do not graze or feed forage to livestock.

Proprietary name: "Dicamba"

Issued: 10-1-66

515

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2-METHOXY-3,6-DICHLOROBENZOIC ACID

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Oats (fall seeded)		lbs. acid equiv per acre 0.25	Postemergence application in spring before joint stage. Do not graze or feed forage to livestock.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHOXY ETHYL MERCURY ACETATE

PRINCIPAL FORMULATIONS: 4.88% and 11.4% liquids; 24.0% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz./bu.	
Barley		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.
Cotton		1.5	Seed treatment only. Do not use treated seed for food, feed, or oil.
Flax		2.0	Seed treatment only. Do not use treated seed for food, feed, or oil.
Oats		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.
Rice		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.
Rye		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.
Sorghum		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.
Wheat		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL BROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as inorganic bromides)	lbs./1000 cu.ft. unless otherwise indicated	
Popcorn	240	1.5	Chamber fumigation. Aerate for 24 hours after fumigation. Do not fumigate more than six times unless residue analyses show that additional fumigation will not exceed the residue tolerances established.
Potatoes	75	3.0	Expose to fumigation for six hours.
Pumpkins	20	2.5	Expose to fumigation for two hours.
Radishes	30	3.0	Expose to fumigation for four hours.
Rice	50	3.0	Expose to fumigation for 24 hours. Do not fumigate if (1) grain moisture is high, (2) grain temperature is low (below 60°F.), or (3) there is excessive dockage.
Rutabagas	30	3.0	Expose to fumigation for six hours.
Rye	50	3.0	Expose to fumigation for 24 hours. Do not fumigate if (1) grain moisture is high, (2) grain temperature is low (below 60°F.), or (3) there is excessive dockage.
Salsify (roots)	30	3.0	Expose to fumigation for four hours.
Sorghum	50	4.0	Expose to fumigation for 24 hours. Do not fumigate if (1) grain moisture is high, (2) grain temperature is low (below 60°F.), or (3) there is excessive dockage.
Spices		3.0	Expose to fumigation for 12 hours.
Squash		4.0	Expose to fumigation for two hours.
Stone Fruits:			
Apricots	20	5.0	Expose to fumigation for two hours.
Cherries	20		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL BROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as inorganic bromides)	lbs./1000 cu.ft. unless otherwise indicated	
Stone Fruits (cont.)			
Nectarines	20	5.0	Expose to fumigation for two hours.
Peaches	20		
Plums	20		
Prunes	20		
Strawberries	30	2.5	Expose to fumigation for four hours.
	(from post-harvest fumigation)	2.5 lbs./actual 1000 sq.ft.	Field treatment of plants under tarpaulins. Expose to fumigation for 1.75-2.75 hours, depending on temperature.
	25	109 lbs./actual acre	Apply as vaporized gas during dormant season following second or succeeding crop years. Use only on Shasta or Lassen varieties.
	(from soil fumigation)	240 lbs./actual acre	Soil application. Expose for 48 hours. Aerate two weeks before setting transplants in treated areas.
Sugarbeets	30	3.0	Expose to fumigation for four hours.
Sweet corn	50	3.0	Expose to fumigation for four hours.
Sweet potatoes	75	3.5	Expose to fumigation for four hours.
Tomatoes	20	3.0	Expose to fumigation for four hours.
		240 lbs./actual acre	Soil application. Expose for 48 hours. Aerate two weeks before setting transplants in treated areas.
Tropical fruits		2.0	Expose to fumigation for four hours.
Turnips	30	3.0	Expose to fumigation for four hours.
Walnuts	200	3.5	Expose to fumigation for 24 hours.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL BROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as inorganic bromides)	lbs./1000 cu.ft. unless other- wise indicated	
Wheat	50	3.0	Expose to fumigation for 24 hours. Do not fumigate if (1) grain moisture is high, (2) grain temperature is low (below 60°F.), or (3) there is excessive dockage.
Yams	30	3.5	Expose to fumigation for four hours.
Zucchini squash	20	2.5	Expose to fumigation for three hours.
Agricultural Premises:			
Ant colonies		1.0 lb. actual/ colony	Apply to individual mounds. Do not apply near fruit trees, etc.
Mushroom houses		2.0	Expose to fumigation for 24 hours when no mushrooms are present.
Plant and seed beds		872.0 lbs. actual/acre	Preplanting soil fumigation. Expose to fumigation for 24 to 48 hours. Aerate for 2-10 days before planting.
Greenhouse plant and transplants		3.0	Expose to fumigation for four hours. Do not fumigate when temperature is higher than 90°F.
Greenhouse plantbed, cold frame, & raised bench: Soil fumigation		2.0 lbs. actual per 100 sq.ft.	Preplanting soil fumigation. Expose to fumigation for 48 hours. Aerate for three days before seeding or seven days before setting transplants.
		1.0 lbs. actual per cu.yd. of loose soil	Preplanting soil fumigation. Expose to fumigation for 24 hours. Aerate for three days before seeding or six days before setting transplants.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL BROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as inorganic bromides)	lbs./1000 cu.ft. unless otherwise indicated	
Soil Application:			
Broccoli	25*	98-122 lbs. actual/A.	Preplanting soil application. Allow 2 days exposure at 60° or above, or 3-4 days if temperature is under 60°, aerate until odor is gone (usually 3-4 days for seeding, 2-3 weeks for transplants).
Cauliflower	25*		
Eggplants	60*		
Muskmelons	40*		
Peppers	25*		
Pineapples	25*		
Strawberries	25*		
Tomatoes	40*		
Space Fumigation:			
Barns		3.0	Make structure as gas-tight as possible, and expose to fumigation for 24 hours. Remove all animals prior to application. Aerate thoroughly after fumigation.
Feed rooms			
Grain bins			
Greenhouses			
Poultry houses			
Etc.		5.0	Make structure as gas-tight as possible, and expose to fumigation for 48 hours. Remove all animals prior to fumigation. Used in connection with Khapra beetle quarantine.
Bags		11.0	Expose to fumigation for 24 hours.
Boxes			
Crates			
(for harvesting or storing raw agricultural commodities)			

Issued: 10-1-66

524

Replaces page issued 7-1-64

*from soil fumigation

USDA Summary of Registered Agricultural Pesticide Chemical Uses

N-METHYLMERCURI-1,2,3,6-TETRAHYDRO-3,6-ENDOMETHANO-
3,4,5,6,7,7-HEXACHLOROPHTHALIMIDE

PRINCIPAL FORMULATIONS: 10% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Barley		.025 oz. act./ bushel	Seed treatment. Do not use treated seed for food, feed, or oil.
Cotton			
Acid delinted		0.1 oz. act./ 100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Machine delinted		0.2 oz. act./ 100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Flax		.025 oz. act./ bushel	Seed treatment. Do not use treated seed for food, feed, or oil.
Oats		.033 oz. act./ bushel	Seed treatment. Do not use treated seed for food, feed, or oil.
Rye		.025 oz. act./ bushel	Seed treatment. Do not use treated seed for food, feed, or oil.
Wheat		.025 oz. act./ bushel	Seed treatment. Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL MERCURY HYDROXIDE

PRINCIPAL FORMULATIONS: 4.9% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz. actual/bu.	
Barley		0.38	Seed treatment only. Do not use treated seed for food, feed, or oil.
Cottonseed			
Acid delinted		0.5	Seed treatment only. Do not use treated seed for food, feed, or oil.
Machine delinted		0.3	Seed treatment only. Do not use treated seed for food, feed, or oil.
Fuzzy		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.
Flax		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.
Oats		0.38	Seed treatment only. Do not use treated seed for food, feed, or oil.
Rice		0.25	Seed treatment only. Do not use treated seed for food, feed, or oil.
Rye		0.38	Seed treatment only. Do not use treated seed for food, feed, or oil.
Sorghum		0.38	Seed treatment only. Do not use treated seed for food, feed, or oil.
Wheat		0.38	Seed treatment only. Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL MERCURY-8-HYDROXYQUINOLINATE

PRINCIPAL FORMULATIONS: 2.25%, 2.7%, 2.4%, 7.5%, 10.2% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz. actual	
Apples		8 oz./A.	Petal fall.
Barley		0.017/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Cottonseed			
Reginned		0.068/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Acid delinted		0.045/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Flax		0.034/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Milo		0.017/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Oats		0.017/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Peanuts (shelled)		0.045/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Rice		0.011/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Safflower		0.04/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Sorghum		0.017/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Wheat		0.017/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL PARATHION*

PRINCIPAL FORMULATIONS: Emulsifiable concentrate containing two pounds per gallon;
Emulsifiable concentrate containing three pounds per gallon;
1% and 2.5% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		1.0	15 days.
		1.25	20 days.
Apples	1	6.0	14 days.
Apricots	1	2.5	14 days.
Artichokes	1	1.0	7 days.
Barley		0.75	15 days.
		0.25	No time limitations.
Beans (dry)	1	1.5	15 days.
Beans (green)	1	1.5	21 days.
Beets	1	1.0	15 days. (21 days if tops are to be used as food).
Broccoli	1	1.5	21 days.
Brussels prouts	1	1.5	21 days.
Cabbage	1	1.5	21 days.
Carrots	1	1.0	15 days.
Cauliflower	1	1.5	21 days.
Celery	1	1.0	15 days.
Clover	1	1.0	15 days.
		1.25	20 days.
Collards	1	1.5	21 days.

*O,O-dimethyl O-p-nitrophenyl phosphorothioate

Issued: 10-1-66

538

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Corn	1	0.25	12 days.
Cotton		3.0	Do not apply within five days of hand picking. (Workers entering fields within 24 hours after application should wear protective clothing).
Grapes	1	0.75	14 days.
Hops		1.0	15 days.
Kale	1	1.5	21 days.
Kohlrabi	1	1.5	21 days.
Lettuce	1	1.0	21 days.
Mustard	1	1.5	21 days.
Oats		0.75	15 days.
		0.25	No time limitations.
Peaches	1	4.0	14 days.
Pears	1	3.0	14 days.
Peas	1	1.0	15 days.
		0.25	10 days.
Peppers	1	1.0	15 days.
Plums	1	4.0	14 days.
Potatoes		1.5	5 days.
Rice		0.75	15 days.
Rutabagas	1	1.5	21 days.
Rye		0.75	15 days.
		0.25	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Safflower		0.5	Do not apply after flowering.
Sorghum		1.0	21 days. Leaf injury may occur on some varieties.
Soybeans		1.0	20 days.
Spinach	1	1.0	21 days.
Strawberries	1	0.75	14 days.
Sugarbeets		0.375	20 days. 60 days if tops are to be fed to livestock.
Sweet potatoes		0.75	5 days.
Tomatoes	1	1.5	15 days.
Turnips	1	0.8	15 days. 21 days if tops are to be used as food or feed. Foliage treatment.
Vetch		1.0	15 days.
		1.25	20 days.
Wheat		0.75	15 days.
		0.25	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

6-METHYL-2,3-QUINOXALINEDITHIOL CYCLIC CARBONATE*

PRINCIPAL FORMULATIONS: 25% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples		4.5	Do not apply after first bloom. Additional application may be made to tree foliage after harvest.
		3.0	Processing fruit only. Do not apply within 35 days of harvest. Do not apply more than 3 times per season.
		1.5	35 days. Do not apply more than 5 times per season except that additional sprays may be made postharvest. Postbloom applications only by air blast or other equipment producing fine well dispersed droplets.
		0.75	35 days. Do not apply more than 10 times per season except that additional sprays may be made postharvest. Postbloom applications only by air blast or other equipment producing fine well dispersed droplets.
Apricots		3.0	Do not apply after first bloom. Additional application may be made to tree foliage after harvest.
Cantaloupe		0.4	21 days. Do not apply more than 7 times per season.
Cherries		3.0	Do not apply after first bloom. Additional application may be made to tree foliage after harvest.
Citrus Fruits:		7.5	Florida and Texas only. Do not apply more than twice during crop year. Do not apply within 35 days of harvest.
Grapefruit			
Oranges			
Lemons			
Tangerines			

*Proprietary name: "Morestan"

Issued: 10-1-66

541

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

6-METHYL-2,3-QUINOXALINEDITHIOL CYCLIC CARBONATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cucumbers		0.4	21 days. Do not apply more than 5 times per season.
Honeydew Melons		0.4	21 days. Do not apply more than 7 times per season.
Nectarines		3.0	Do not apply after first bloom. Additional application may be made to tree foliage after harvest.
Peaches		3.0	Do not apply after first bloom. Additional application may be made to tree foliage after harvest.
Pears		4.5	Do not apply after first bloom. Additional application may be made to tree foliage after harvest.
		3.0	Processing fruit only. Do not apply within 35 days of harvest. Do not apply more than 3 times per season.
Plums		3.0	Do not apply after first bloom. Additional application may be made to tree foliage after harvest.
Prunes		3.0	Do not apply after first bloom. Additional application may be made to tree foliage after harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYLENE CHLORIDE

PRINCIPAL FORMULATIONS: 49.4% and 50.6% liquid (used with 1,1,1-trichloroethane)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Citrus Fruits:		lbs./1000 cu.ft.	
Grapefruit	Exempt	2.7	Degreening, with ethylene gas. Apply
Kumquats	Exempt	(2 quarts)	metered dosage over 24-hour period.
Lemons	Exempt		Exposure should not exceed 72 hours.
Limes	Exempt		Aerate by fan for 12 hours.
Oranges	Exempt		
Tangeloes	Exempt		
Tangerines	Exempt		
Strawberries	Exempt	3.5	Post-harvest fumigation. Expose to
			fumigation for 24 hours. Aerate thor-
			oughly until odor has left strawberries.
		gals./1000 bu.	
<u>Commodity</u>			
<u>Fumigation</u>			
Grain:			
Barley	Exempt	0.375	Aerate thoroughly after fumigation until
			all odor has left grain.
Corn	Exempt	0.6	Aerate thoroughly after fumigation until
			all odor has left grain.
Oats	Exempt	0.375	Aerate thoroughly after fumigation until
			all odor has left grain.
Popcorn	Exempt	0.6	Aerate thoroughly after fumigation until
			all odor has left grain.
Rice	Exempt	0.375	Aerate thoroughly after fumigation until
			all odor has left grain.
Rye	Exempt	0.375	Aerate thoroughly after fumigation until
			all odor has left grain.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYLENE CHLORIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Grain (cont.)		gals./1000 bu.	
Sorghum	Exempt	0.6	Aerate thoroughly after fumigation until all odor has left grain.
Wheat	Exempt	0.375	Aerate thoroughly after fumigation until all odor has left grain.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,2'-METHYLENEBIS (3,4,6-TRICHLOROPHENOL)*

PRINCIPAL FORMULATIONS: 25% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Beans (snap)		lbs. actual/A.	
		0.5	Preemergence and postemergence drench in seed row areas until plants are established. Do not feed treated foliage to livestock.
Cabbage		1.0	Preemergence and postemergence seedbed treatment only. Do not apply after seedling stage.
		0.5	Preemergence and postemergence drench in seed row areas until plants are established. Do not feed treated foliage to livestock.
Celery		1.0	Preemergence and postemergence seedbed treatment only. Do not apply after seedling stage.
		0.5	Preemergence and postemergence drench in seed row areas until plants are established. Do not feed treated foliage to livestock.
Citrus Fruits		1.0	Preemergence and postemergence seedbed treatment only. Do not apply after seedling stage.
		2.5	5 days.
Cotton		0.25	Apply to furrow at time of planting or as a postemergence soil treatment. Do not apply after bolls open.
Cucumbers		0.375	3 days.
Peaches		0.19 lbs./100 gals. of water	Do not apply to bearing trees after shuck-fall.
Peppers		1.0	Preemergence application.

*Coined non-proprietary name: "Hexachlorophene"

Issued: 10-1-66

544

Replaces page issued 2-10-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,2'-METHYLENEBIS (3,4,6-TRICHLOROPHENOL)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Peppers (cont.)		lbs. actual/A. 0.375	5 days.
Potatoes		0.19 lbs./100 gals. of water	Do not apply to harvested potatoes.
Tomatoes		0.375	5 days.
		1.0	Preemergence application.
Watermelons		0.5	Preemergence and postemergence drench in seed row areas until plants are estab- lished. Do not feed treated foliage to livestock.
		1.0	Preemergence and postemergence seedbed treatment only. Do not apply after seedling stage.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

4-(METHYL SULFONYL)-2,6-DINITRO-N,N-DIPROPYLANALINE

PRINCIPAL FORMULATIONS: 75% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A. 1.13	Preplanting soil incorporation. Apply 4 weeks before planting, up to time of planting. or Preemergence soil incorporation at time of or immediately after planting. or Postemergence soil incorporation at layby.
Soybeans (for beans)		1.13	Preplant soil incorporation. Apply 4 weeks before planting, up to the time of planting. or Preemergence soil incorporation at time of or immediately after planting. Do not feed or graze forage from treated fields or livestock.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MINERAL OIL*

PRINCIPAL FORMULATIONS: Liquids and smears containing 20%-73% oil with other insecticidal ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Corn (shelled)	200	2.0 qts./ 100 sq. ft. or 5.0 qts./ circular 3300 bu. bin	Post-harvest application. Apply to surface layer of stored grain. (Mineral oil must meet specifications published in Federal Register, Dec. 12, 1956.)
Grain Sorghum	200	2.0 qts./ 100 sq. ft. or 5.0 qts./ circular 3300 bu. bin	Post-harvest application. Apply to surface layer of stored grain. (Mineral oil must meet specifications published in Federal Register, Dec. 12, 1956.)
Animals:			
Beef Cattle		73.0%	Apply liberally as a spot treatment to wounds, cuts, and abrasions. Formulated with other ingredients.
Dairy Cattle			
Goats			
Sheep			
Swine			

*Also see "Summer Oils," "Dormant Oils," and "Petroleum Solvents"

Issued: 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM (VI)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as zinc)		
Mushrooms	7	1 qt. + 3/4 lb. zinc sulfate per 100 gals.	Apply to soil between "breaks."
Mustard Greens	25	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days.
Onions	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days on green onions. No time limitations on others.
Pecans		2 qts. + 3/4 lb. zinc sulfate per 100 gals.	45 days.
Peppers	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations.
Potatoes		4 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations.
		1 pt. + 3 oz. zinc sulfate per 30 gals.	Dip whole or cut seed pieces.
Pumpkins	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations.
Spinach	25	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days.
Squash	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days on summer squash.
Strawberries	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days of picking.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM (VI)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as zineb)		
Sugarbeets		2 qts. + 1 lb. zinc sulfate 100 gals. Use 75-125 gals./A.	30 days. Do not feed treated tops to dairy animals or livestock.
Swiss Chard	25	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days.
Tomatoes	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations.
Turnips	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days if tops are to be used for food or feed.
Watermelons	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations.
Wheat	1	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	3-4 weeks.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM VII

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Potato	ppm as Zineb	lbs. 93% w.p./ acre plus mix 2 + a or b	No time limitation. Foliage application only.
Potato seed treatment		0.25 lb./30 gal. water plus 3 oz. 36% zinc sulfate	Do not use treated seed pieces for food or feed.
Spinach	25	2 + a or b	7 days.
Squash (summer)	7	2 + a or b	7 days.
Strawberry	7	2 + a or b	Apply before fruit forms and after harvest.
Swiss chard	25	2 + a or b	7 days.
Tomato	7	2 + a or b	No time limitations.
Turnip	7	2 + a or b	7 days.
Watermelon	7	2 + a or b	No time limitations.
Wheat	1	2 + a or b	Milk stage.

Issued: 10-1-65

565

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NALED*

PRINCIPAL FORMULATIONS: 4% dust; emulsifiable concentrate containing 8 lbs. of active ingredient per gallon

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		2.0	4 days.
Apricots		8.0	4 days.
Beans (dry, lima, green)		2.0	4 days.
Broccoli		2.0	4 days.
Brussels Sprouts		2.0	4 days.
Cabbage		2.0	4 days.
Cauliflower		2.0	4 days.
Celery		2.0	4 days.
Chard		2.0	4 days.
Clover		2.0	4 days.
Collards		2.0	4 days.
Cotton		1.4	Do not apply within 4 days of handpicking.
Cucumbers		1.5 (spray) 2.0 (dust)	4 days.
Cucumbers (greenhouse)		1.0 oz./ 10,000 cu. ft.	1 day.
Eggplants		2.0	4 days.
Endive		2.0	4 days.
Filberts		10.0	10 days.
Grain sorghum		1.0	4 days.

1,2-DIBROMO-2,2-DICHLOROETHYL DIMETHYL PHOSPHATE

*Proprietary name: "Dibrom"

Issued: 10-1-66

566

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NALED

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Grapefruit		20.0	7 days.
Grapes		1.0 (spray) 2.0 (dust)	4 days.
Hops		1.0	4 days.
Kale		2.0	4 days.
Lemons		20.0	7 days.
		4.0 oz./ 100,000 cu. ft.	Postharvest fumigation. Do not apply within 7 days of shipment.
Lettuce		2.0	4 days.
Melons		4.0	7 days.
Mustard greens		2.0	4 days.
Nectarines		8.0	4 days.
Onions (bulbs only)		0.5 (spray) 1.0 (dust)	4 days.
Oranges		20.0	7 days.
Pastures & Rangeland		0.25	No limitations.
		1.0	Do not cut for hay to be sold commercially or shipped interstate within 4 days after application.
Peaches		8.0	4 days.
Peas		2.0	4 days.
Peppers		2.0	4 days.
Plums		8.0	4 days.
Potatoes		1.0	No time limitations.
Prunes		8.0	4 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NALED

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Pumpkins		4.0	7 days.
Rice		0.75	4 days.
Soybeans		2.0	4 days.
Spinach		2.0	4 days.
Squash (summer)		1.5 (spray) 2.0 (dust)	4 days.
Squash (winter)		4.0	7 days.
Strawberries		1.0 (spray) 2.0 (dust)	4 days.
Sugar beets		1.0	5 days.
Tangerines		20.0	7 days.
Tomatoes		1.0	4 days.
Tomatoes (greenhouse)		1.0 oz./ 10,000 cu. ft.	1 day.
Turnips (tops & roots)		2.0	4 days.
Vetch		2.0	4 days.
Walnuts		10.0	10 days.
Animals:			
Poultry Chickens Pheasants Turkeys		0.3% in water	Apply as a light mist spray to entire bird except head. Apply at the rate of one gallon per 100 birds. Concentrate application under wings and around tail area. Do not apply to chickens under 6 weeks of age or to turkeys under 3 months of age. Repeat application as necessary.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NOREA*

PRINCIPAL FORMULATIONS: 80% and 90% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A.	
		3.0	Preemergence application at time of or within 3 days after planting. Do not plant crops other than cotton within 5 months after treatment.
		1.8	Postemergence application at time of last cultivation as a directed spray to soil. Do not plant other crops on treated soil within 5 months after application.
Sorghum		2.41	Preemergence application at time of seeding and before weeds or crop emerges.
Sugarcane		3.2	Preemergence application before weed seeds germinate. Do not apply within 5 months of harvest. Do not plant crops other than cotton, sorghum, or sugarcane within 5 months after treatment.
		2.4	Postemergence application before weed seeds germinate. Do not apply within 5 months of harvest. Do not plant crops other than cotton, sorghum, or sugarcane after treatment. Do not apply to sugarcane receiving preemergence application of Norea.

*3 (hexahydro-4,7-methanoindan-5-yl) 1,1-dimethyl urea

Issued: 10-1-66

585

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE*

PRINCIPAL FORMULATIONS: Used as a supplemental synergist for pyrethrins

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Grain:			
Barley		1.0 lb./1000 bu	Postharvest application. Apply directly
Corn		or 500 sq. ft.	to grain as it is placed in storage or
Oats			as a surface treatment to grain already
Rice			in storage.
Rye			
Sorghum (grain)			
Wheat			
Animals:			
Beef Cattle		2.0%	Apply to outer hair as a mist spray at
Dairy Cattle		in oil or water	the rate of 2.0 oz. per animal the size
Goats			of an adult cow.
Sheep		0.2%	Formulated with other ingredients for
Swine		(dust)	use in a duster bag.
		2.0%	Pressurized spray formulation. Apply to
		in oil	outer hair at the rate of 2.0 oz. per
			animal the size of an adult cow.
		10.0%	Apply by treadle sprayer at the rate of
		in oil	3.6 cc per animal the size of an adult
			cow. Repeat twice daily.
Agricultural Premises:			
Barns		1.0%	Apply liberally where insects hide or
Dairy Barns		dust	congregate.
Hog Pens		2.0%	Apply as a space spray. Fill room with
Milk Rooms		in oil or water	mist and keep closed for 10 minutes.
Poultry Houses			
Etc.		2.0%	Pressurized spray formulation. Fill
		in oil	room with mist and keep closed for 10
			minutes.

*Proprietary name: "MGK-264"

Issued: 10-1-66

586

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

N-OCTYL SULFOXIDE OF ISOSAFROLE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)			
Swiss Chard Tomatoes Turnips Watermelons		0.5% in water	Apply as a mist spray to all plant surfaces. No time limitations.
Animals:			
Beef Cattle Dairy Cattle Goats Sheep Swine		0.5% in water 1.0% in water 4.0% in oil	Dip or spray. Thorough application to animals. No time limitations. Thorough application to ventral surfaces and legs of animals. Can be applied to entire body at 2 quarts per animal the size of an adult cow. Apply 2 ounces per animal as a mist spray. Do not spray udder.
Agricultural Premises:			
Animal Pens Barns Dairy Barns Grain Bins Milk Rooms Poultry Houses		75 gms./1000 sq. ft. in water	Apply thoroughly to all interior surfaces as a wet spray.

Issued: 7-1-64

589

USDA Summary of Registered Agricultural Pesticide Chemical Uses

OIL OF LEMON

PRINCIPAL FORMULATIONS: 1% liquid with other fungistatic ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Hay	Safe Chemical	lb. act./ton 0.02	Postharvest application. Used only in combination with other fungistats.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

OIL OF ORANGE

PRINCIPAL FORMULATIONS: 1% liquid with other fungistatic ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Hay	Safe Chemical	lb. act./ton 0.02	Postharvest application. Used only in combination with other fungistats.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ORTHODICHLOROBENZENE

PRINCIPAL FORMULATIONS: 100% crystals; 33.34% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises:			
Poultry Houses Animal Sleeping Quarters		10.0% in oil	Apply liberally to all interior surfaces, especially roosts, nests, etc. in poultry houses.
Poultry breed- ing and laying houses		33.34% granules	Apply liberally on and around areas where flies breed.
Stock yards			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARATHION*

PRINCIPAL FORMULATIONS: 15% and 25% wettable powders; 1% and 2% dusts; 4% granular; 25% and 47% emulsifiable concentrates; 10% aerosol formulations

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa	1	0.8	15 days.
Almonds		3.0	Full coverage spray. Do not apply after hulls open.
		6.0	Dormant spray only.
Apples	1	6.0	14 days. Full coverage spray. Do not apply to susceptible varieties.
Apricots	1	3.6	14 days. Do not apply until danger of bee poisoning has passed.
Artichokes	1	1.0	7 days.
Asparagus		0.6	Post-cutting season.
Avocados	1	2.5	21 days.
Barley	1	1.5	15 days.
Beans	1	0.8	15 days.
		5.0	Preplanting soil application or at time of planting.
Beets	1	0.8	15 days. (21 days if tops are to be used for food or feed.)
Blackberries	1	0.8	15 days.
Blackeyed Peas	1	0.8	15 days.
Blueberries	1	0.6 (dust or spray)	14 days.
Boysenberries	1	1.0	15 days.
Broccoli	1	0.5	7 days.

*O,O-diethyl O-p-nitrophenyl phosphorothioate

Issued: 10-1-66

599

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Brussels Sprouts	1	0.5	7 days.
		1.0	14 days.
Cabbage	1	0.25	7 days.
		0.5	10 days.
		5.0	Preplanting soil application.
Carrots	1	1.0	15 days.
		5.0	Preplanting soil application.
Cauliflower	1	0.5	7 days.
		5.0	Preplanting soil application.
Celery	1	0.25	15 days.
		0.5	21 days.
		1.0	30 days.
Cherries	1	2.1	14 days. Full coverage spray.
Citrus Fruits:			
Grapfruits	1	4.0	14 days.
Kumquats	1		
Lemons	1	10.0	30 days.
Limes	1		
Oranges	1		
Tangeloes	1		
Tangerines	1		
Clover	1	1.5	15 days.
Collards	1	0.25	7 days.
		0.5	10 days.
Corn	1 (grain & forage)	1.0	12 days (of harvest or cutting for forage).

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Nectarines	1	4.0	Areas other than California: Full coverage spray for control of scale insects. Do not apply within 14 days of harvest. Do not apply more than 5 lbs. actual parathion per acre per year.
		2.5	California: Do not apply within 21 days of harvest. Do not apply more than once after bloom. Do not apply more than 5 lbs. actual parathion per acre between January 1 and harvest.
Oats	1	1.5	15 days.
Okra	1	0.8	21 days.
Olives	1	11.0	Full coverage spray for control of olive scales. Do not apply later than Aug. 1.
Onions	1	0.8	15 days.
Pea Forage	1	0.5	15 days.
Peaches	1	4.0	Areas other than California: Full coverage spray for control of scale insects. Do not apply within 14 days of harvest. Do not apply more than 5 lbs. actual parathion per acre per year.
		2.5	California: Do not apply within 21 days of harvest. Do not apply more than once after bloom. Do not apply more than 5 lbs. actual parathion per acre between January 1 and harvest.
Peanuts	1	0.8	15 days.
		2.66	Soil application to row at time of planting or at pegging time. Work lightly into soil.
Pears	1	3.6	14 days. Full coverage spray.
Peas	1	0.5	10 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Pecans		5.4	Full coverage spray. Do not apply within 15 days of harvest or after shucks open.
Peppers	1	0.8	15 days.
Pineapples	1	0.8	7 days.
Plums	1	4.0	14 days. Full coverage spray for control of scale insects.
Potatoes		1.0	5 days.
Prunes	1	4.0	14 days. Full coverage spray for control of scale insects.
Pumpkins	1	0.8	10 days.
Quinces	1	3.6	14 days. Full coverage spray.
Radishes	1	0.5	15 days.
		0.1 lb./50,000 cu. ft. of greenhouse space	15 days. Apply as an aerosol formula- tion.
Raspberries	1	1.0	15 days.
Rutabagas	1	0.8	7 days.
Safflower		0.5	Do not apply after flowering.
Sorghum		1.0	12 days (of harvest or cutting for forage).
Soybeans		0.8	15 days.
Spinach	1	0.5	14 days.
Squash Summer Winter	1	0.5	15 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Strawberries	1	0.8	14 days.
		1.0	Postharvest treatment for control of root weevils.
Sugar Beets		0.8	15 days.
Sweet Potatoes		1.0	15 days.
Swiss Chard	1	0.8	21 days.
Tomatoes	1	1.0	10 days.
		0.1 lb./50,000 cu. ft. of greenhouse space	10 days. Apply as an aerosol formulation.
Turnips	1	0.25	7 days.
		0.5	10 days.
Vetch	1	0.8	15 days.
Walnuts		10.0	Do not apply after husks open.
Watercress (greenhouse)		0.1 lbs./50,000 cu. ft. of greenhouse space	No application after edible parts begin to form.
Wheat	1	1.5	15 days.
General Soil Treatment		6.0	Preplanting soil application only. Keep all persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises:		lbs. actual/A.	
Animal Sleep- ing Quarters Dairy Barns Feed Rooms Poultry Houses Sheep Folds Etc.		100 mg./linear foot or cord	Use 300 feet of impregnated cord per 1000 sq. ft. of floor space in building. Hang cords from ceiling.
General Mosquito Larvacide:			
Irrigation Ditches		1 oz./A.	To be applied by Public Health or Mosquito Abatement authorities. Repeat as necessary.
Irrigated Pastures	1 (on grass forage)	0.1	7 days.
Rice Fields	1 (on rice)	0.1	1 day.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PCNB*

PRINCIPAL FORMULATIONS: 75% wettable powder; 25% liquid; 10%, 20%, and 40% dusts;
24% emulsifiable concentrate; 1.63% paste

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		12.0	One week after cutting or in late fall.
Bananas		1.63% paste	Apply to tips and butts of stems immediately after cutting. Do not apply to fruit.
Beans		7.5	Soil and seed treatment only (at planting time).
		5.0 (dust overall)	Foliar use. Do not feed treated vines to livestock.
		2.0 (spray directed at base of plant)	Do not apply after first bloom. Do not feed treated vines to livestock.
Broccoli		4.5 lbs./100 gals. water	Transplant solution 3/4 pint per plant.
		41.25	Row application--prior to transplanting.
		60.0	Broadcast--prior to planting.
Brussel Sprouts		4.5 lbs./100 gals. water	Transplant solution 3/4 pint per plant.
		41.25	Row application--prior to transplanting.
		60.0	Broadcast--prior to planting.
Cabbage		4.5 lbs./100 gals. water	Transplant solution 3/4 pint per plant.
		41.25	Row application--prior to transplanting.
		60.0	Broadcast--prior to planting.
Cauliflower		4.5 lbs./100 gals. water	Transplant solution 3/4 pint per plant.

*Pentachloronitrobenzene

All uses listed for PCNB refer only to field grown crops unless otherwise specifically noted.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PCNB

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cauliflower (cont.)		lbs. actual/A.	
		41.25	Row application--prior to transplanting.
		60.0	Broadcast--prior to planting.
Clover		12.0	One week after last cutting or in late fall.
Cotton		5.0	Soil and seed treatment only (at planting time).
Cotton (seed)		4.0 oz./100 lbs. seed	Seed treatment. Do not use treated seed for food or feed.
Garlic		10.2 lbs. per 1000 lbs.	Seed clove treatment (dust). Do not use treated seed for food or feed.
		22.5	Soil and seed treatment only (at planting time).
Lettuce (head)		22.5	Band application when plants are 2-3 inches high.
		4.0	Band application when plants are 2-3 inches high. Repeat application once ten days later (25-55 days preharvest).
Peanuts		18.75	Surface band application at pegging time.
		20.0	Preplanting soil application only.
		18.0	Divided into three successive applications of six pounds per acre each during cultivations. Band treatment (12 inch band centered on row).
Peppers			Do not feed treated peanut hay to livestock.
		7.5	Trench treatment at planting time.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PCNB

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Potatoes		lbs. actual/A. 10.0	Row application prior to planting.
Sorghum		1.4 oz./100 lbs. seed	Seed treatment. Do not use treated seed for food or feed.
Tomatoes		7.5	Trench treatment at transplanting time.
Tomatoes (greenhouse)		0.5 pts. of 0.2% sol./plant	Transplant water.
Wheat		0.75 oz./bu. 0.75 oz./bu.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PENTACHLOROPHENOL*

PRINCIPAL FORMULATIONS: 2% liquid; 5.0%, 10%, 40%, and 96% emulsifiable concentrate; 75% pellets; 95% crystals; 42.5% - 88% wettable powders

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		3.8	Dormant season (Feb. or early March). Apply when weeds are in 2-5 leaf stage.
Seed Crop		6.0	Preharvest desiccant. Apply 1-4 days prior to date of harvest. Do not graze treated areas or feed treated forage or threshings to livestock.
Chemical Summer Fallow		4.0	Wet weeds thoroughly. (Used in combination with 2,4-D).
Almonds		30.0	Dormant (Jan.-Feb.) application only.
Apricots		15.0	Dormant application only, before green tip stage of bud development.
Asparagus (Seedlings)		6.0	Preemergence application. Do not apply after seedlings emerge.
Beans		0.05 lbs./1000 lbs. seed	Seed treatment. Do not use treated seed for food, feed, or oil purposes.
Citrus Fruits:			
Grapefruit		3.0	Apply as directed ground spray at any time.
Kumquats			
Lemons			
Limes			
Oranges			
Tangeloes			
Tangerines			
Clovers (undesignated) (seed crop)		6.0	Preharvest desiccant. Apply 1-4 days prior to date of harvest. Do not graze treated areas or feed treated forage or threshings to livestock.
Coffee		4.5	Apply as directed spray when weeds and grasses are small and succulent. (May be combined with 2,4-D).

*PCP

Issued: 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PETROLEUM SOLVENTS*

PRINCIPAL FORMULATIONS: 100% sprays, soluble oils, and as carriers for other pesticides in livestock fly sprays and emulsifiable concentrates

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		gallons/A.	
Alfalfa	Exempt	30.0	Dormant application to stands which have been established two years or more.
(seed crop)		45.0	Preharvest drying. Apply 5-14 days prior to harvest.
Asparagus	Exempt	40.0	Preemergence application when weeds are 1-2 inches high.
		100.0	Post-harvest application to soil. Do not apply to ferns.
Beans	Exempt	80	Preemergence - apply when weeds are in seedling stage.
Beets	Exempt	100.0	Preemergence - apply before weeds are 3 inches tall.
Blackberries	Exempt	40.0	Apply during dormancy as a directed spray to soil and lower 5 inches of canes.
		100.0	Apply as a directed spray when weeds are 1-2 inches high. Do not apply to canes.
Blueberries	Exempt	40.0	Apply during dormancy as a directed spray to soil and lower 5 inches of canes.
		100.0	Postemergence - apply between rows when weeds are not over 3 inches tall. Avoid application on crop.
Boysenberries	Exempt	100.0	Apply as a directed spray when weeds are 1-2 inches high. Do not apply to canes.
Broccoli	Exempt	40.0	Preemergence application when weeds are 1-2 inches high.
Brussels sprouts	Exempt	40.0	Preemergence - apply when weeds are 1-2 inches tall.

*Also see "Summer Oils," "Dormant Oils," and "Mineral Oil"

Issued: 2-10-65

625

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PETROLEUM SOLVENTS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		gallons/A.	
Cabbage	Exempt	40.0	Preemergence - apply when weeds are 1-2 inches tall.
Caraway	Exempt	100.0	Preemergence application or postemergence application when plants are in 2-4 fern leaf stage.
Carrots	Exempt	100.0	Preemergence application. Apply before weeds are 3 inches high.
		150.0	6 weeks. Postemergence application when carrots are in 2-4 leaf stage.
Cauliflower	Exempt	40.0	Preemergence - apply when weeds are 1-2 inches tall.
Celery	Exempt	100.0	Preemergence application or postemergence application when crop produces first true leaves (2-4 weeks after transplanting) and before crown leaf cups are formed.
Clover (seed crop)	Exempt	45.0	Preharvest drying. Apply 5-14 days prior to harvest.
Coffee	Exempt	4.55 (formulated with penta-chlorophenol)	Apply as directed spray to weeds. Make 2 applications per year.
Corn (sweet)	Exempt	100.0	Preemergence application.
Cotton	Exempt	5.0	Postemergence application not less than 7 days after cotton emerges. Repeat as weeds appear at 5-day intervals with no more than 5 applications.
Cranberries	Exempt	100.0	Apply when weeds are 1-2 inches high in spring. Do not apply when temperature is over 80°F. or when leaves are wet.
		800.0	Dormant application every 2 years. Do not apply after budding begins.
Cucumbers	Exempt	100.0	Preemergence application.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PETROLEUM SOLVENTS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Dill	Exempt	gallons/A. 100.0	Preemergence application or postemergence application when dill is in 2-4 fern leaf stage. Repeat 4-6 weeks later.
Field, Fiber, and Forage Crops:			
Alfalfa	Exempt	8.0 lbs. act/A. in water sprays	No time limitations. As carriers of other insecticides.
Barley	Exempt		
Birdsfoot Trefoil	Exempt		
Buckwheat	Exempt		
Clover	Exempt		
Corn	Exempt		
Cotton	Exempt		
Flax	Exempt		
Grasses	Exempt		
Hops	Exempt		
Lespedeza	Exempt		
Millet	Exempt		
Milo	Exempt		
Oats	Exempt		
Pasture grass	Exempt		
Peanuts	Exempt		
Popcorn	Exempt		
Rice	Exempt		
Rye	Exempt		
Safflower	Exempt		
Sorghum	Exempt		
Soybeans	Exempt		
Sugarbeets	Exempt		
Sugarcane	Exempt		
Vetch	Exempt		
Wheat	Exempt		
Flax	Exempt	100.0	Postemergence application when flax is about 3-4 inches high.
Grapes	Exempt	100.0	Apply as a directed spray when weeds are 1-2 inches high.
Gooseberries	Exempt	100.0	Postemergence - apply between rows when weeds are not over 3 inches tall. Avoid application on crop.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PETROLEUM SOLVENTS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		gallons/A.	
Lettuce	Exempt	75.0	Preemergence application.
Loganberries	Exempt	100.0	Postemergence - apply between rows when weeds are not over 3 inches tall. Avoid application on canes.
Melons	Exempt	100.0	Preemergence application.
Mint	Exempt	100.0	Preemergence application.
Onions	Exempt	75.0	Preemergence application.
		40.0	Postemergence application up to hook stage.
Orchards:			
Almond	Exempt	100.0	Apply as a directed spray when weeds are 1-2 inches high. Do not allow spray to come in contact with tree foliage.
Apricot	Exempt		
Avocado	Exempt		
Citrus	Exempt		
Date	Exempt		
Olive	Exempt		
Peach	Exempt		
Pear	Exempt		
Plum	Exempt		
Walnut	Exempt		
Papaya	Exempt	50.0	Apply as directed spray to weeds as needed. Up to 5 application per year.
Parsley	Exempt	100.0	Preemergence application before weeds are 3 inches high or postemergence application when parsley is in 2-4 leaf stage. Do not apply within 6 weeks of harvest.
Parsnips	Exempt	100.0	Preemergence application when weeds are 3 inches high or postemergence application when parsnips are in 2-4 leaf stage. Do not apply within 6 weeks of harvest.
Peas	Exempt	100.0	Preemergence - apply when weeds are less than 3 inches tall.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PETROLEUM SOLVENTS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		gallons/A.	
Potatoes	Exempt	100.0	Preemergence application.
		45.0	Preharvest drying. Apply 14 days prior to harvest or when foliage starts to turn brown.
Raspberries	Exempt	40.0	Apply during dormancy as a directed spray to soil and lower 5 inches of canes.
		100.0	Apply as a directed spray when weeds are 1-2 inches high. Do not apply to canes.
Stored Grain:			
Barley		7.0 lbs. act./	Apply to surface layer of stored grain.
Corn		1000 sq. ft.	No time limitations.
Oats			
Rice		7.0 lbs. act./	Apply as a space spray over stored grain.
Rye		50,000 cu. ft.	Keep bin tightly closed for at least 10 minutes.
Sorghum (grain)			
Wheat			
Soybeans	Exempt	5.0	Postemergence application 12-14 days after emergence. Repeat application at 5-day intervals.
Strawberries	Exempt	100.0	Preemergence - apply between rows when weeds are not over 3 inches tall. Avoid application to crop.
Sugar beets	Exempt	100.0	Preemergence - apply before weeds are 3 inches tall.
Sugarcane	Exempt	50.0	Apply as directed spray to weeds as needed from planting to close-in.
Tomatoes	Exempt	40.0	Preemergence application when weeds are 1-2 inches high.
		100.0	Preemergence - apply between rows when weeds are not over 3 inches tall. Avoid application on crop.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PETROLEUM SOLVENTS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:		gallons/A.	
Beef cattle		2.0 oz.	No time limitations. Apply as a mist
Dairy cattle		(of distillate	spray. Do not wet hide of animal.
Goats		sprays per	
Sheep		adult animal)	
Swine		2.0%	No time limitations. As carriers of
Poultry		(in water)	other insecticides. Dip or spray.
			Thoroughly drench animals.
Agricultural Premises:			
Barns		7.0 lbs./	Apply thoroughly to all surfaces as a
Dairy barns		1000 sq. ft.	residual spray. Formulated with other
Grain bins			ingredients. Do not contaminate milk or
Milk rooms			milk handling equipment.
Poultry houses			
Others		7.5%	As carriers of other insecticides. Apply
		in water sprays	to all surfaces to the point of run-off.
			Do not contaminate milk or milk handling
			equipment.
		3.0%	As carriers of other insecticides. Fill
		in water sprays	room with mist and keep closed for ten
			minutes. Do not contaminate milk or
			milk handling equipment.
		99.0%	Formulated with other ingredients. Fill
			room with mist and keep tightly closed
			for ten minutes.
		44.0%	Formulated with other ingredients. Apply
			as a paint to roost, nests, etc. in
			poultry houses. Replace nesting and
			litter.
Irrigation and Drainage Ditches		1200.0	Apply metered amount near head of ditch.
			Water containing emulsion should be
			wasted or applied to crops which are
			irrigated from furrows. Do not contam-
			inate water used for human or animal
			consumption. Do not use in lakes or
			ponds containing fish.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PETROLEUM SOLVENTS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Special Mosquito Larvacide		gallons/A. 0.5% in water sprays	Apply uniformly over standing bodies of water, swamps, and rice fields, etc.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENOL (CARBOLIC ACID)

PRINCIPAL FORMULATIONS: 3.0% paint with other ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cattle Goats Sheep Swine		3.0% paint with other ingredients	Apply as a wound dressing after dehorning, castrating, or other minor wounds.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENOTHIAZINE*

PRINCIPAL FORMULATIONS: 15% and 36% wettable powders; mineral feed supplement

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples	7	20.0	30 days.
Pears	7	20.0	30 days.
Quinces	7	20.0	30 days.
Animals:			
Beef cattle		15.0% (powder)	Apply liberally to animal and brush into hair, making sure powder reaches skin.
Goats			Do not apply to dairy animals.
Sheep			
Swine (excluding dairy cattle)			
Cattle		1/4 gram/100 lbs. body weight daily	Feed in salt or in mineral supplement. Do not feed to lactating dairy animals.
		2.15 grams/ head daily or 0.25 grams/ 100 lbs. body weight daily	Feed in salt or mineral supplement. Do not feed to lactating dairy animals.

*Thiodiphenylamine

Issued: 10-1-66

632

Replaces page issued 2-10-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENYLAMINO CADMIUM DILACTATE (6.25%) PLUS
PHENYL MERCURY FORMAMIDE (6.25%)

PRINCIPAL FORMULATIONS: Mixture of technical materials with inert diluents

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz./bu.	
Barley		0.5	Seed treatment. Do not use treated seed for food or feed.
Flax		1.5	Seed treatment. Do not use treated seed for food or feed.
Oats		1.5	Seed treatment. Do not use treated seed for food or feed.
Rye		0.5	Seed treatment. Do not use treated seed for food or feed.
Sorghum		0.5	Seed treatment. Do not use treated seed for food or feed.
Wheat		0.5	Seed treatment. Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENYL MERCURIC ACETATE

PRINCIPAL FORMULATIONS: 2.5%, 4.0%, 5.4%, 7.5%, 10.0%, 22.0% liquids;
14.0% wettable powder; 1.44% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples	0	0.5	Delayed dormant through petal fall.
Barley		0.078 oz.act./bu.	Seed treatment only. Apply as dry dust or by slurry treater. Do not use treated seed for food or feed.
Cherries	0	0.5 pint of 10% liquid/100 gals.	Petal fall application.
Flax		0.234 oz.act./bu.	Seed treatment only. Apply as dry dust or by slurry treater. Do not use treated seed for food or feed.
Millet		0.078 oz.act./bu.	Seed treatment only. Apply as dry dust or by slurry treater. Do not use treated seed for food or feed.
Oats		0.078 oz.act./bu.	Seed treatment only. Apply as dry dust or by slurry treater. Do not use treated seed for food or feed.
Peaches	0	0.5 pint of 10% liquid/100 gals.	Petal fall application.
		1.5 pints of 10% liquid/100 gals.	Make two applications 2-4 weeks apart before buds swell. Use in Oregon and Washington only.
Pears	0	0.5 pint of 10% liquid/100 gals.	Petal fall application.
Rice		0.029 oz.act./bu.	Seed treatment only. Planter box application. Do not use treated seed for food or feed.
Rye		0.078 oz.act./bu.	Seed treatment only. Apply as dry dust or by slurry treater. Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENYL MERCURIC ACETATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sorghum	0	lbs. actual/A. 0.078 oz.act./bu	Seed treatment only. Apply as dry dust or by slurry treater. Do not use treated seed for food or feed.
Strawberries		0.5 pint of 10% sol./100 gals. water	No application while fruit is present. Apply only when growth begins in spring or post-harvest; use no more than 250 gallons per acre.
Sugarcane		0.5 pint of 10% sol./100 gals. water	Dip seed pieces for 20 minutes at 50°C.
		1.0 quart of 10% sol./100 gals. water	Dip seed pieces momentarily or spray on seed pieces.
Vegetable seed beds		37 oz. act./A.	Preemergence soil treatment only when seedlings are to be transplanted later to untreated soil.
Wheat		0.078 oz.act./bu	Seed treatment only. Apply as dry dust or by slurry treater. Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENYL MERCURIC ACETATE, 5% - ETHYL MERCURIC ACETATE, 1% (MIXTURE)

PRINCIPAL FORMULATIONS: 5% - 1% mixture

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz./bu.	
Cotton (seed):			
Acid delinted		3 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Machine delinted		2 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Fuzzy		4.8 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Flax		1.5	Seed treatment (dry and slurry).
Grain:			
Barley		0.5	Seed treatment (dry).
Oats		0.75	Seed treatment (slurry).
Rye			Do not use treated seed for food or feed.
Sorghum			
Wheat			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHORATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A. 0.3	Furrow treatment. Apply by hill-dropped method.
		1.0	Do not apply after bolls open. Do not graze treated areas or feed forage to livestock.
Cottonseed		0.88 lbs./amt. of seed required per acre	Seed treatment only.
Lettuce		1.0	Northeastern states only. Apply as a band treatment on one or both sides of the row at time of seeding or transplanting. Do not place granules in direct contact with seed.
Peanuts		1.0	Granular formulation. Apply to furrow at time of planting. Do not graze immature crop.
		2.0	Band treatment of fruiting zone at pegging time. Work into top few inches of soil. Do not graze immature crop.
Potatoes		2.0 (light or sandy soils)	Apply to furrow or in bands on each side of row at planting time.
		3.0 (heavy or muck soils)	Apply to furrow or in bands on each side of row at planting time.
Rice		1.0	Postharvest soil application. Use limited to the Federal-State cooperative program for the suppression of the rice plant hopper in Louisiana.
		2.0 (granular)	Broadcast application by ground or air equipment. Do not apply within 45 days of harvest. Do not apply more than once per season. Do not permit incidental harvest of crayfish or other edible fishes from treated field.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHORATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Sugar beets		2.0	Apply as a spray to seed in row at time of planting.
		1.0	No time limitations. Granular formulations. Apply by drilling or broadcasting.
Sugar beets (fall planted in Imperial Valley, California)		1.0 (30 in. row spacing) or 0.92 oz. actual per 1000 feet of row	Apply by drilling or broadcasting at seeding time or apply to foliage and crowns when plants are dry. Foliage application by air may be used when wet soil prohibits ground application. Do not place granules in direct contact with seed. Do not apply within 60 days of harvest. Do not graze livestock on growing crop or on stubble after threshing.
Sugar beets (seed)		0.88 lbs./25 lbs. of seed	Seed treatment only.
Tomatoes		2.0	Apply as a band treatment on either side of row at time of planting or transplanting. or Distribute evenly in seed bed prior to planting. Do not make more than one application per season.
Wheat		1.0	Apply to furrow at time of planting. Do not graze treated wheat.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PIPERONYL BUTOXIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables:		lbs. actual/A.	
Asparagus	Exempt	0.4	No time limitations.
Beans	Exempt	(spray)	
Beets	Exempt		
Blackeyed Peas	Exempt	3.0	
Broccoli	Exempt	(dust)	
Brussels Sprouts	Exempt		
Cabbage	Exempt		
Cantaloupes	Exempt		
Carrots	Exempt		
Cauliflower	Exempt		
Celery	Exempt		
Collards	Exempt		
Corn	Exempt		
Cowpeas	Exempt		
Cucumbers	Exempt		
Eggplants	Exempt		
Endive	Exempt		
Garlic	Exempt		
Horseradish	Exempt		
Kale	Exempt		
Kohlrabi	Exempt		
Leeks	Exempt		
Lettuce	Exempt		
Melons	Exempt		
Mustard Greens	Exempt		
Okra	Exempt		
Onions	Exempt		
Parsnips	Exempt		
Peas	Exempt		
Peppers	Exempt		
Pimientos	Exempt		
Potatoes	Exempt		
Pumpkins	Exempt		
Radishes	Exempt		
Rutabagas	Exempt		
Salsify	Exempt		
Shallots	Exempt		
Spinach	Exempt		
Squash (Summer)	Exempt		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PIPERONYL BUTOXIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Vegetables: (Cont.)			
Squash (Winter)	Exempt	0.4 (spray)	No time limitations.
Sweet Potatoes	Exempt		
Swiss Chard	Exempt	3.0	No time limitations.
Tomatoes	Exempt	(dust)	
Turnips	Exempt		
Watermelons	Exempt		
Vegetables:			
Beans	8	5.0 gms./1000	Postharvest application. Apply directly
Muskmelons	8	cu. ft. (spray)	to commodities in the field, in storage,
Peas	8		or in processing plants.
Tomatoes	8	10.0% (dust)	Postharvest application. Apply directly
			to commodities in the field, in storage,
			or in processing plants.
		1.0% emulsion dip	Postharvest application. Dip injured
			vegetables at time of harvest.
Animals:			
Beef cattle		2.0% (in water)	Dip or spray. No time limitations.
Dairy cattle			
Goats		2.0% (in oil)	Apply as a mist spray at the rate of 2
Sheep			ounces per animal.
Swine		5.0% (in water)	Formulated with other ingredients. Apply
			2 ounces per ear for control of ear
			ticks.
		5.0% (in oil)	Apply by treadle sprayer at the rate of
			2 ounces per animal.
		20.0% (dust or powder)	Apply to shoulders and back of animal at
			the rate of one tablespoonful per animal.
			Rub into hair. No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PIPERONYL BUTOXIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals: (cont.)		lbs. actual/A.	
Beef cattle		11.25%	Use undiluted in automatic or self-actuated sprayers placed in a lane or area where cattle will make 2-3 round trips daily. Nozzles should be calibrated to deliver 1/15 fl. oz. per trip.
Dairy cattle			
Poultry		1.0% (in a water dip)	Thoroughly drench birds. No time limitation.
		20.0% (dust or powder)	Apply by pinch method. No time limitation.
Agricultural Premises:			
Animal pens		3.0%	Apply as a surface spray to the point of run-off, or as a mist spray.
Barns		(in water)	
Dairy barns			Aerosol formulation. Fill room with mist and keep closed for 10 minutes.
Grain bins		6.0%	
Milk rooms			
Poultry houses			
Etc.			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

POLYCHLOROBENZOIC ACID*

PRINCIPAL FORMULATIONS: 47.7% liquid (as dimethylamine salts)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Croplands (undesignated)		lbs. chlor- inated benzoic acid equiv./A. 40	Spot treatment. Apply when weeds are leafing out. Do not use treated areas for crop production until chemical is inactivated. Do not contaminate water used for domestic or irrigation pur- poses.
Rangeland		40	Spot treatment. Apply in early spring when weeds and brush are leafing out. Keep grazing animals off treated area for at least one year. Do not contaminate water used for domestic or irrigation purposes.

*2,3,5,6-PBA; see also 2,3,6-trichlorobenzoic acid

Issued: 10-1-66

664

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

POLYETHYLENE POLYMER CONTAINING 3 PARTS OF [ETHYLENEBIS [DITHIOCARBAMATO]]
 ZINC TO 1 PART OF [[DITHIOBIS[(THIOCARBONYL) IMINOETHYLENE]]
 BIS [DITHIOCARBAMATO]] ZINC

PRINCIPAL FORMULATIONS: 80% wettable powder; 10% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples		8.0	Apply to petal fall. Do not apply within 90 days of harvest.
		6.0	Cover spray. Do not apply within 90 days of harvest.
Corn (sweet) for fresh vegetable use		3.2	Florida only. Do not apply within 1 day of picking. Do not feed forage to live-stock.
Cotton		1.0 actual/100 lbs. seed	Planter box seed treatment.
Peanuts		1.6	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Pecans		16.0	Do not apply after shuck-split.
Potatoes		1.6	No time limitations.
		1.7 oz./100 lbs.	Seed piece treatment.
Sugar beets		2.4	Do not feed treated tops to meat or dairy animals.
Tomatoes		1.9	Do not apply within 30 days of harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

POTASSIUM AMMONIUM ETHYLENE BISDITHIOCARBAMATE

PRINCIPAL FORMULATIONS: 25% solution; formulation is used in tank mix preparations by reaction of zinc sulphate to form zineb and manganese sulphate to form maneb. Rate of tank mixture equals 3 qts. of 25% solution per 100 gals. of water plus 0.75 lbs. of 36% metallic zinc sulphate & 0.75 lbs. of metallic manganese sulphate. Apply at the rate of 150 gals. of mixture/A.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		qts./100 gals. water	
Beans (succulent)	10 maneb 7 zineb	3.0	7 days.
Broccoli	10 maneb 7 zineb	3.0	7 days.
Brussels sprouts	10 maneb 7 zineb	3.0	7 days.
Cabbage	10 maneb 7 zineb	3.0	7 days.
Cantaloupes	7 maneb 7 zineb	3.0	No time limitations.
Cauliflower	10 maneb 7 zineb	3.0	7 days.
Celery	10 maneb 7 zineb	3.0	No time limitations. Remove residues by washing, stripping, and trimming.
Corn (sweet)	7 maneb (kernel & cob) 7 zineb	3.0	No time limitations. Do not feed treated forage to livestock.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

POTASSIUM OLEATE

PRINCIPAL FORMULATIONS: With other ingredients as animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals: Beef Cattle Dairy Cattle Goats Sheep Swine		10%	Formulated with other ingredients and applied locally as a screw-worm or ear tick remedy.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

S-PROPYL DIPROPYL THIOCARBAMATE *

PRINCIPAL FORMULATIONS: 75.9% emulsifiable concentrate containing 6 lbs. actual per gallon

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Peanuts		lbs. actual/A. 3.0	Preplanting soil incorporation. Plant seed as soon as possible after treatment. or Preemergence soil incorporation.
Soybeans		3.0	Preplant soil incorporation. Plant seeds as soon as possible after treatment. or Preemergence soil incorporation or soil surface application. or Postemergence soil incorporation when crop is 1-2 inches tall.
Sweet potatoes		3.0	Preplanting soil application immediately ahead of bedding discs.

*Proprietary name: "Vernam"

Issued: 10-1-66

670

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

S-PROPYL BUTYLETHYLTHIOCARBAMATE

PRINCIPAL FORMULATIONS: 76% emulsifiable concentrate; 10% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sugar beets		lbs. actual/A. 6.0	Preplant soil application, incorporate immediately 2-4 inches deep, and seed immediately.
Tomatoes		4.0	Preplant soil incorporation 2-4 inches deep and direct seed immediately. or Postemergence directed spray to soil and incorporate 2-4 inches deep immediately. or Layby application directed on soil and incorporate 2-4 inches deep immediately. Do not apply within 8 days of harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PROPYLENE DICHLORIDE

PRINCIPAL FORMULATIONS: Emulsifiable concentrates

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apricots		1 oz. per tree in diluted emulsion form	Peach tree borer control. Apply diluted solution around the tree trunk and cover with soil. Do not apply directly to tree trunk. Smaller amounts should be applied to younger trees because of possible phytotoxicity.
Barley		9.0 gal./1000 bu.	Seed treatment only.
Corn		9.0 gal./1000 bu.	Seed treatment only.
Nectarines		1 oz. per tree in diluted emulsion form	Peach tree borer control. Apply diluted solution around the tree trunk and cover with soil. Do not apply directly to tree trunk. Smaller amounts should be applied to younger trees because of possible phytotoxicity.
Oats		9.0 gal./1000 bu.	Seed treatment only.
Peaches		1 oz. per tree in diluted emulsion form	Peach tree borer control. Apply diluted solution around the tree trunk and cover with soil. Do not apply directly to tree trunk. Smaller amounts should be applied to younger trees because of possible phytotoxicity.
		0.2 lbs./tree in diluted emulsion form	Peach tree borer control. Apply around base of tree and cover with soil. Use on mature trees only.
Rice		9.0 gal./1000 bu.	Seed treatment only.
Rye		9.0 gal./1000 bu.	Seed treatment only.
Sorghum (milo)		9.0 gal./1000 bu.	Seed treatment only.
Wheat		9.0 gal./1000 bu.	Seed treatment only.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PYRETHRINS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Grain:		lbs. actual/A.	
Barley	3 ppm of	0.6 lbs./1000	Postharvest application. Apply directly to grain as it is placed in storage.
Birdseed mixtures	pyrethrins	bu. (dust)	
Buckwheat	20 ppm of	90 grams/1000	Postharvest application. Apply as a surface treatment to bagged or bulk stored grain.
Corn	piperonyl	bu. (spray)	
Oats	butoxide	38.0 grams/1000	
Rice		sq. ft.	
Rye		(dust or spray)	
Sorghum (grain)			
Wheat			
Miscellaneous Commodities:			
Cottonseed	1 ppm of	0.5 grams/	Postharvest application. Apply directly to and in space over commodities in storage.
Flaxseed	pyrethrins	1000 cu. ft.	
	8 ppm of	1.0% (dust)	
	piperonyl		
	butoxide		
Mushrooms	Exempt	7.0 grams/ standard mushroom house	No time limitations.
Peanuts	1 ppm of	68.0 grams/1000	Postharvest application. Apply directly to peanuts on conveyor as they are placed in storage.
	pyrethrins	bu.	
	8 ppm of		Postharvest application. Apply as a surface treatment to bulk or bagged peanuts in storage.
	piperonyl	38.0 grams/1000	
	butoxide	sq. ft.	
		(dust or spray)	
		2.5 grams/1000	Postharvest application. Apply as a mist or space spray over stored peanuts.
		bu. (spray)	
Vegetables:			
Asparagus	Exempt	20.0 grams/A.	No time limitations.
Beans	Exempt	(spray)	
Beets	Exempt	0.3 (dust)	
Blackeyed peas	Exempt		
Broccoli	Exempt		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PYRETHRINS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (cont.)		lbs. actual/A.	
Brussels Sprouts	Exempt	20.0 grams/A. (spray)	No time limitations.
Cabbage	Exempt	0.3 (dust)	
Cantaloupes	Exempt		
Carrots	Exempt		
Cauliflower	Exempt		
Celery	Exempt		
Collards	Exempt		
Corn	Exempt		
Cowpeas	Exempt		
Cucumbers	Exempt		
Eggplants	Exempt		
Endive	Exempt		
Garlic	Exempt		
Horseradish	Exempt		
Kale	Exempt		
Kohlrabi	Exempt		
Leeks	Exempt		
Lettuce	Exempt		
Melons	Exempt		
Mustard greens	Exempt		
Okra	Exempt		
Onions	Exempt		
Parsnips	Exempt		
Peas	Exempt		
Peppers	Exempt		
Pimientos	Exempt		
Potatoes	Exempt		
Pumpkins	Exempt		
Radishes	Exempt		
Rutabagas	Exempt		
Salsify	Exempt		
Shallots	Exempt		
Spinach	Exempt		
Squash (summer)	Exempt		
Squash (winter)	Exempt		
Sweet potatoes	Exempt		
Swiss chard	Exempt		
Tomatoes	Exempt		
Turnips	Exempt		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PYRETHRINS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)		lbs. actual/A.	
Watermelons	Exempt	20.0 grams/A. (spray) 0.3 (dust)	No time limitations.
Beans	1 ppm of	0.5 grams/1000	Postharvest application. Apply directly to commodities in the field, in storage, or in processing plants.
Muskmelons	pyrethrins	cu. ft. (spray)	
Peas	8 ppm of	1.0% (dust)	
Tomatoes	piperonyl butoxide	0.1% emulsion dip	Postharvest application. Dip injured vegetables at time of harvest.
Animals:			
Beef cattle		0.1% (in oil)	Apply 1.5 ounces per animal in the area of the head and face.
Dairy cattle			
Goats		1.12%	Used undiluted in automatic or self-actuated sprayers. Placed in a lane or area where cattle will make 2 to 3 round trips daily. Nozzles should be calibrated to deliver 1/15 fl. oz. per trip.
Sheep			
Swine			
		0.2% (in water)	Dip or spray. No time limitations.
		0.2% (in oil)	Distillate spray. Apply 2.0 ounces per animal. No time limitations.
		0.5% (in water)	Formulated with other ingredients. Apply 2.0 ounces per ear for control of ticks.
		0.5% (in oil)	Apply by treadle sprayer at the rate of 2.0 ounces per animal.
		0.075% (dust)	Formulated with other active ingredients. For use in a duster bag.
		2.0% (dust or powder)	Apply to shoulders and back at the rate of 1 tablespoonful per animal. Rub powder into hair. No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PYRETHRINS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals: (Cont.) Poultry		lbs. actual/A. 0.1% (in water as a dip) 2.0% (dust or powder)	Thoroughly drench birds. No time limitations. Apply by pinch method. No time limitations.
Agricultural Premises: Animal pens Barns Dairy barns Grain bins Milk storage rooms Poultry houses etc.		0.3% (in water) 0.6%	Apply as surface spray to point of run- off, or as a mist spray. Aerosol formulation. Fill room with mist and keep closed for 10 minutes.
Special Food cartons		250 mgs./ cu. ft. (dust)	Apply to exterior surfaces of food cartons which are to be placed in large cartons. Do not apply directly to food.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

RONNEL*

PRINCIPAL FORMULATIONS: Bolus containing 15 grams of active ingredients. 25% wettable powder; 12% and 24% emulsifiable concentrate; 5% screw worm smears. 5% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bananas	0.5	0.25 gram actual/stalk	Enclose stalk of bananas in special bag. After placing open-end of bag over the banana stem, fold the bottom edge of the bag to form a pocket. Tie the bottom of the bag securely. To avoid fruit injury do not allow the Korlan 25W to contact the bananas.
Beef cattle Dairy cattle (non-lactating)	0 in meat	0.26%** (mineral feed mixture)	Mix with grain or protein supplement, so that animals will receive 0.3 lbs. of the 0.26% mixture per 100 lbs. of body weight daily for 14 consecutive days. Do not feed to cows producing milk for human consumption. Do not feed to any cattle within 28 days of slaughter. Do not feed to heifers within 28 days of freshening, that will produce milk for human consumption. Use as only source of ronnel medication.
		0.002** lbs./100 lbs. body weight/ day	Mix mineral feed supplement (containing up to 6% ronnel) thoroughly with daily feed ration. Feed at rate to provide 0.002 pounds actual ronnel per 100 lbs. of body weight per day for 7 days. Do not treat after October 31. Do not feed mineral feed mixture free choice. Do not treat within 60 days of slaughter. Do not treat mature dairy cattle. Dairy heifers may be treated up to 60 days before freshening. Use as only source of ronnel medication.
		15.0 gms.**/ 300 lbs. of body weight	Apply orally in bolus formulations. Do not apply within 50 days of slaughter. Do not apply to lactating dairy animals or to dry dairy animals within 60 days of freshening.

*O,O-dimethyl O-2,4,5-trichlorophenyl phosphorothioate; proprietary name: "Trolene" and "Korlan."

**Purified grade only.

Issued: 10-1-66

RONNEL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Beef cattle Dairy cattle (non-lactating) (Cont.)	0 in meat	5.5% in mineral supplement, block, or granular	Free choice feeding. 0.25 lbs. of product per 100 lbs. body weight per head per month. Feed for 75 days or more continuously. Do not feed to dairy cows, or dairy heifers within 21 days of freshening. Do not feed to any cattle within 21 days of slaughter. Use as only source of ronnel medication.
		1.5% (in oil)	Apply by back-rubbers. Do not apply within 6 weeks of slaughter. Do not apply to lactating dairy animals or to dry dairy animals within 21 days of freshening.
		1.0% (in oil)	Apply by back rubbers. Do not apply within 14 days of slaughter. Do not apply to lactating dairy animals or to dry dairy animals within 21 days of freshening.
		0.75% (in water)	Dip or spray. Thoroughly wet animals. Do not apply within 8 weeks of slaughter. Do not apply more frequently than once every 2 weeks. Do not apply to lactating dairy animals or to dry dairy animals within 21 days of freshening.
		5.0% (screw-worm treatment)	Apply locally to wounds, cuts, and scratches. Do not apply within 21 days of slaughter. Do not apply to lactating dairy animals, or to dry dairy animals within 21 days of freshening.
		5.0% (dust)	Apply locally to wounds, cuts, and scratches. Do not apply within 21 days of slaughter. Do not apply to lactating dairy animals or to dry dairy animals within 21 days of freshening.
Goats Sheep		0.5% (in water)	Dip or spray. Thoroughly wet animals. Do not apply within 12 weeks of slaughter. Do not apply more frequently than once every 2 weeks. Do not apply to lactating dairy animals, or to dry dairy animals within 21 days of freshening.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

RONNEL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Goats Sheep (Cont.)		5.0% (screw-worm treatment)	Apply locally to wounds, cuts, and scratches. Do not apply within 21 days of slaughter. Do not apply to lactating dairy animals or to dry dairy animals within 21 days of freshening.
Swine		0.5% (in water)	Dip or spray. Do not apply within 6 weeks of slaughter. Do not apply more frequently than once every 2 weeks.
		5.0% (screw-worm treatment)	Apply locally to wounds, cuts, and scratches. Do not apply within 21 days of slaughter.
Bedding		0.025 lbs. actual per 100 sq.ft.	Remove swine from treated bedding or replace bedding with untreated bedding, at least two weeks before slaughter.
Agricultural Premises:			
Barns		1.0% (in water)	Apply to interior surfaces as a residual spray at the rate of 3 gallons per 1000 sq. ft. Can be used as a bait spray by adding sugar and molasses. Do not contaminate milk or milking equipment.
Barn yards			
Dairy barns			
Hog pens			
Milk rooms			
Poultry houses		2.0% (in water)	Liquid bait formulations. Apply by brushing or spraying on walls, window sills, doorways, and other places where flies congregate. Do not contaminate milk or milking equipment.
Etc.			
		1.0%	Dry sugar bait formulation. Apply to floors, window sills, walks, and manure piles at the rate of 0.5 pound per 1000 sq. ft. Do not contaminate milk or milking equipment.
		2.0% (in water)	Spray poultry droppings under cages.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ROSIN

PRINCIPAL FORMULATIONS: With various toxicants as animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals: Beef Cattle Dairy Cattle Goats Sheep Swine		10.0%	Formulated with various other ingredients as screw-worm remedies. Apply locally to wounds, etc. as needed until wounds have healed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ROTENONE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises:		lbs. Actual/A.	
Barns		0.1% (in oil or water)	Apply as a surface or space spray. Do not contaminate feed, milk, or milking equipment.
Dairy Barns			
Hog Pens		1.0% (dust)	Apply liberally to all infested areas. Do not contaminate feed, milk, or milking equipment.
Milk Rooms			
Poultry Houses		2.0% (dust)	Apply liberally to all interior surfaces. Replace nesting and litter.
Special:			
Outdoors		0.25 lbs. (in oil)	Apply to large areas as mosquito larvacide.
		3.0% (in oil)	Apply by fogging machines. Usually formulated with synergized pyrethrins.
Indoors		5.0% (in oil)	Apply by fog generators. Usually formulated with synergized pyrethrins.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

RYANIA

PRINCIPAL FORMULATIONS: 100% dust; dusts or wettable powders ranging from 40%-100% Ryania, with or without synergists
0.08% Ryanodine alkaloid in sugar bait

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples	Exempt	72.0	No time limitations.
Citrus	Exempt	0.8 lbs. of ryanodine alkaloid per acre	Apply as a sugar bait. No time limitations.
Corn	Exempt	20.0	No time limitations.
Cranberries	Exempt	25.0	No time limitations.
Pears	Exempt	72.0	No time limitations.
Quinces	Exempt	72.0	No time limitations.
Sugarcane	Exempt	8.0	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SILVEX

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Rice		lbs. actual/A. 1.5	Treat 4-8 weeks after emergence of rice. If flooded, treat 7-9 weeks after seeding.
Lakes & Ponds		lbs. actual/A. ft. of water	
Submerged Weeds		5	Apply in late spring or early summer as spray over surface of lake or pond.
Emerged Weeds		8	Apply as above or on emerged foliage. Avoid use in waters intended for irrigation, crop spraying or domestic and animal water supplies. Some fish kill may occur.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SIMAZINE*

PRINCIPAL FORMULATIONS: 50% and 80% wettable powders; 4%, 8%, and 10% granular formulations; 25% paste

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		4.0	Single application to orchard floor before weeds emerge in orchards established one or more years. Do not apply to foliage or while nuts are on ground.
Apple		4.0	Apply to orchard floor anytime before weeds emerge. Apply only to orchards established one or more years. Do not apply to foliage or fruit. Do not apply to sandy soil.
Artichokes		4.0	Directed spray after last fall tillage around established crop plants.
Asparagus (established)		4.0	Apply in spring after disking and prior to weed and spear emergence. Repeat application at end of harvest season after weedy growth has been removed.
Avocados		4.0	Apply to orchard floor before weeds emerge following final preparation of the grove. Do not apply to foliage or fruit.
Blackberries		4.0	Apply in the spring before weeds emerge and fruit set, or in fall after harvest, or use half dosage fall and spring. For new plantings use half dosage. Do not apply to foliage or while fruit is present.
Blueberries		4.0	Apply in the spring before weeds emerge and fruit set, or in fall after harvest, or use half dosage fall and spring. For new plantings use half dosage. Do not apply to foliage or while fruit is present.

*2-chloro-4,6-bis (ethylamino)-s-triazine

Issued: 10-1-66

700

Replaces page issued 2-10-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SIMAZINE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Boysenberries		4.0	Apply in the spring before weeds emerge and fruit set, or in fall after harvest, or use half dosage fall and spring. For new plantings use half dosage. Do not apply to foliage or while fruit is present.
Cherries (sour)		4.0	Apply to orchard floor anytime before weeds emerge. Apply only to orchards established one or more years. Do not apply to foliage or fruit. Do not apply to sandy soils.
Cherries (sweet)		4.0	Soil application around established trees after harvest to early spring. Do not apply to foliage or fruits.
Corn		4.0	Preplant application in fall. Plow land in spring just prior to planting corn. Do not plant any crop except corn the following year. Do not graze treated areas. or Preemergence--do not replant treated areas to any crops other than corn during the season.
Cranberries		4.0	Postharvest or dormant overall soil application. Use limited to Massachusetts.
		2.0	Apply in spring before weeds emerge.
Grapefruit		4.0	(California)--Application to grove floor before weeds emerge in orchards established one or more years. Avoid contact of foliage or fruit with spray.
		4.8	(Texas)--Application to grove floor before weeds emerge in orchards established one or more years. Avoid contact of foliage or fruit with spray.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SIMAZINE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Grapefruit (Cont.)		9.6	(Florida)--Apply in spring (March-April). Do not contaminate fruit with chemical.
Grapes		4.8	Apply to vineyard floor from late fall after harvest to early spring to vineyards established 3 or more years.
Lemons		2.0	(Arizona)--Apply in fall following final preparation of grove and prior to weed emergence. Repeat annually in midwinter or apply once in fall and repeat in spring prior to weed emergence. Do not apply in groves less than one year old or in nurseries. Avoid contact with fruit.
		4.0	(California)--Application to grove floor before weeds emerge in orchards established one or more years. Avoid contact of foliage or fruit with spray.
Loganberries		4.0	Apply in the spring before weeds emerge and fruit set, or in fall after harvest, or use half dosage fall and spring. Do not apply to foliage or while fruit is present.
Macadamia orchards		4.0	Apply just prior to weed emergence or just before harvest and repeat immediately after gathering nuts from ground. Do not exceed 8 lbs. actual per acre per year.
Olives		4.0	Broadcast single soil application in late fall or mid-winter. Do not apply to foliage or fruit.
Oranges Established		9.6	Florida and Texas. Apply in spring (March and April). Repeat annually. Do not contaminate fruit with chemical.
		2.0	(Arizona)--Apply in fall following final preparation of grove and prior to weed emergence. Repeat annually in midwinter or apply once in fall and repeat in spring prior to weed emergence. (Cont.)

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SIMAZINE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Oranges Established (Cont.)		2.0	(Cont.) Do not apply in groves less than one year old or in nurseries. Avoid contact with fruit.
		4.0	(California)--Apply to grove floor before weeds emerge in orchards established one or more years. Avoid contact of foliage or fruit with spray. Do not use in the Imperial, Coachella, and Palo Verde Valleys.
		4.8	(Texas)--Application to grove floor before weeds emerge in orchards established one or more years. Avoid contact of foliage or fruit with spray.
Pasture Grass (Bermuda)		3.2	Apply in late winter or early spring after sprigging and before weed seeds germinate. Do not graze livestock on treated areas or cut for hay within 5 months after application.
Peaches		4.0	Soil application around established trees after harvest to early spring. Do not apply to foliage or fruits.
Pears		4.0	Single application to orchard floor any-time before weeds emerge in orchards established one or more years. Do not apply to sandy soils.
Pineapple		6.0	Apply as an overall spray immediately after planting (and after harvest if a ratoon crop is to be grown) and prior to weed emergence. Repeat application of 1.6 lbs. actual per acre as needed. Do not apply more than 30 lbs. actual per acre per crop cycle. Do not apply within 45 days of harvest.
Plums		4.0	Soil application around established trees after harvest to early spring. Do not apply to foliage or fruits.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SIMAZINE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Raspberries		lbs. actual/A. 4.0	Apply in the spring before weeds emerge and fruits set, or in fall after harvest, or use half dosage fall and spring. For new plantings, use half dosage. Do not apply to foliage or while fruit is present.
Strawberries (Marshall, Northwest)		1.0	Apply 3-4 weeks after planting. Second application in fall of first year. Post-harvest application to be followed by irrigation.
Sugarcane		4.0	Apply at or immediately after planting and before weeds or cane emerge. For ratoon crop, apply immediately after harvest, or before cane emerges. or Postemergence. Apply once over cane or two directed sprays between rows. Do not apply more than 10 lbs. per acre per crop. Do not apply after "close in."
Walnuts		4.0	Single application prior to weed emergence or crop cycle to floor in orchards established one or more years. Do not apply to foliage or while nuts are on the ground. Do not apply to sandy soil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM BENZOATE

PRINCIPAL FORMULATIONS: 3% and 5% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/ton	
Grain	Safe Chemical	0.10	Postharvest application. Used only in combination with other fungistats.
Hay	Safe Chemical	0.06	Postharvest application. Used only in combination with other fungistats.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM FLUORIDE

PRINCIPAL FORMULATIONS: 25%-95% powders

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals: Poultry		0.8% (in water) 95.0% (powder)	Dip. Thoroughly drench birds. Thorough application to birds.
Agricultural Premises: Barns Grain Bins Poultry Houses Sheep Folds Etc. (exclude dairy barns)		10.0 oz./1000 sq. ft of floor space	Apply powder in cracks etc. where insects hide or congregate. Do not contaminate feed or drinking water.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM FLUOSILICATE

PRINCIPAL FORMULATIONS: 5% baits; 2% dust with other ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Strawberries		lbs. Actual/A. 2.85	Dry bait formulation. Apply to crown of strawberry plants. Do not apply after fruit starts to form.
Tree Fruits:			
Apples		4.0	Wet or dry bait formulations. Do not contaminate foliage or fruit.
Apricots			
Avocados			
Cherries			
Dates			
Figs			
Grapefruit			
Guavas			
Kumquats			
Lemons			
Limes			
Mangoes			
Nectarines			
Olives			
Oranges			
Papayas			
Passion Fruit			
Peaches			
Pears			
Persimmons			
Plums			
Pomegranate			
Prunes			
Quinces			
Tangeloes			
Tangerines			
Vegetables:			
Asparagus		4.0	Wet or dry bait formulations. Spread on ground around plants. Do not contaminate foliage or edible parts.
Beans			
Beets			
Blackeyed Peas			
Broccoli			
Brussels Sprouts			
Cabbage			
Cantaloupes			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM HYPOCHLORITE

PRINCIPAL FORMULATIONS: 5.25% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Beans (seed)		1% solution	Seed treatment. Treat 1 to 5 minutes. Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM o-PHENYLPHENATE

PRINCIPAL FORMULATIONS: 97.0% wettable powder
 1.5%, 11.5%, 2.0%, 23.0%, 30.0%, 34.0%, and 40.0% solutions
 1.0% wax emulsion
 0.7% wax emulsion

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples	25	0.45% solution	Postharvest treatment. Dip fruit for 45 seconds and rinse with fresh water.
		0.69% solution	Postharvest spray for 30 seconds. No rinse needed.
		0.23% solution	Postharvest dip or spray for 30-45 seconds. No rinse needed.
Bananas		2.0%	Postharvest treatment. Spread evenly over exposed cut stem area or crown of head area. Do not contaminate skin or fruit.
Cantaloupes	125 (not more than 10 in edible portion)	1.5% solution	Postharvest dip or spray. Allow to drain; do not rinse.
Carrots	20	0.1% (in water)	Postharvest dip, floor or spray.
		0.5%	Solvent system wax applicator.
Cherries	5	1.0% water solution with wetting agent	Postharvest dip or spray. Rinse briefly with fresh water.
Citrus Fruits:			
Citron	10	3.0% in water	Postharvest treatment. Dip 2 minutes; rinse with fresh water.
Grapefruit	10	plus caustic	
Kumquats	10	and hexamine	
Lemons	10		
Limes	10	1 gal. 1% wax	Postharvest application by wax foamer or
Oranges	10	emulsion per	suitable spray unit.
Tangelos	10	10,000 lbs. fruit	

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM o-PHENYLPHENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Citrus Fruits: (Cont.)			
Citron	10	1 gal. 0.5%	Postharvest applications as wax coating.
Grapefruit	10	anhydrous	
Kumquats	10	wax emulsion	
Lemons	10	per 5000 lbs.	
Limes	10	of fruit	
Oranges	10		
Tangelos	10		
Cucumbers	10	1.0% (in water)	Postharvest dip, flood or spray. Flush with water for at least 30 seconds after treatment.
		2.0%	Commercial wax applicator.
Nectarines	5	1.0% (in water)	Postharvest dip, flood or spray. Flush briefly with fresh water after treatment.
Peaches	20	0.05% solution	Postharvest dip for 15-18 minutes at 33-35°F. Allow to drain; do not rinse.
		0.6% water solution	Postharvest dip for 20-30 seconds. Rinse fruit after treatment. If machine is stopped during operation, immediately rinse fruit manually.
Pears	25	0.45% solution	Postharvest treatment. Dip fruit for 45 seconds and rinse with fresh water.
		0.23% solution	Postharvest dip or spray for 30-45 seconds. No rinse required.
Peppers	10	1.0% (in water)	Postharvest dip, flood or spray. Flush with water for at least 30 seconds after treatment.
		2.0%	Commercial wax applicator.
Pineapple	10	1.25% (in water)	Postharvest dip. Remove immediately. Do not rinse.
		1 gal. 1% wax emulsion per 10,000 lbs. fruit	Postharvest application by wax foamer or suitable spray unit.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM o-PHENYLPHENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Plums	20	0.1% (in water)	Postharvest dip, flood or spray. Flush briefly with water after treatment.
		2.0%	Solvent system commercial wax applicator.
Sweet Potatoes	15	0.5% solution (tetrahydrate) or 0.37% solution (anhydrous)	Postharvest flooding. Use 1 gal. of solution per 2000 lbs. of sweet potatoes.
		0.7% (anhydrous) wax emulsion	Postharvest application at the rate of 1 gallon per 4,000 lbs. of sweet potatoes.
Tomatoes	10	1.0% (in water)	Postharvest dip, flood or spray. Flush with fresh water for at least 30 seconds.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

STREPTOMYCIN

PRINCIPAL FORMULATIONS: 15% and 20% powders; 0.1%, 2.0% & 8.5% dusts; 37% and 62.5% formulations of sulfates and nitrates.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples		200 ppm	Do not apply after fruit is visible.
		60 ppm (spray)	120 days. For use in West Coast Area only.
		1500 ppm (dust)	120 days. For use in West Coast Area only.
Beans		400 ppm	Apply only on seed crop or before pods appear on table beans. Do not feed treated vines to livestock.
		10,000 ppm (1%)	Commercial seed treatment. Do not use treated seed for food or feed.
Celery		200 ppm	Plant beds only.
Cucumbers		400 ppm	Do not apply after edible portions begin to form.
Hops		1000 ppm	Treat hop crown when shoots first appear. Repeat first soak spray after crown pruning (shoots 4-12 inches long). Do not apply after first vine training.
Pears		200 ppm	Do not apply after fruit is visible.
		60 ppm (spray)	90 days. For use in West Coast Area only.
		1500 ppm (dust)	90 days. For use in West Coast Area only.
Peppers		2000 ppm (dust)	Plant beds only.
		400 ppm	Do not apply after edible portions begin to form.
Potatoes		100 ppm	Soak cut seed pieces 30 minutes.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

STREPTOMYCIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sesame		250 ppm	Seed treatment only. Do not use treated seed for food or feed. Do not feed treated plants to livestock.
Tomatoes		2000 ppm (dust)	Plant beds only.
		400 ppm	Do not apply after edible portions begin to form.
Walnuts		200 ppm	Do not apply after fruit is visible.
		50 ppm (spray)	120 days.
		1000 ppm (dust)	120 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

STREPTOMYCIN - OXYTETRACYCLINE MIXTURE

PRINCIPAL FORMULATIONS: Soluble powder containing 15% streptomycin and 1.5% oxytetracycline

USE	TOLERANCE (ppm)	DOSAGE (ppm)	LIMITATIONS
Apples		1500	Bloom applications only.
Beans		400	Apply only on seed crop beans or before pods start to form on table beans. Do not feed treated vines to livestock.
Celery		2000	Plant bed treatment.
Cucumber		400	Do not apply after fruit begins to form.
Hops		1000	Early spring to vine training applications only.
Pears		1500	Bloom application only.
Peppers		3300	Plant bed treatment.
		2000	Field use. Do not apply after fruit begins to form.
Potato		100	Seed piece treatment.
Sesame		250	Seed treatment.
Tomato		3300	Plant bed treatment.
		2000	Field use. Do not apply after fruit begins to form.
Walnut		1500	Bloom and one additional postbloom stage application only.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SULFONATED CASTOR OIL

PRINCIPAL FORMULATIONS: Used with various toxicants as animal remedies.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals: Beef Cattle Dairy Cattle Goats Sheep Swine		25.0%	Formulated with various other ingredients as screw-worm remedies. Apply locally to wounds, etc. as needed until wounds have healed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SUMMER OILS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Grapes	Exempt	48	No time limitations.
Olives		254	No time limitations.
Vegetables:			
Asparagus	Exempt	15	No time limitations.
Beans			
Beets			
Blackeyed Peas			
Broccoli			
Brussels			
Sprouts			
Cabbage			
Cantaloupes			
Carrots			
Cauliflower			
Celery			
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Garlic			
Horseradish			
Kale			
Kohlrabi			
Leeks			
Lettuce			
Melons			
Mustard Greens			
Okra			
Onions			
Parsnips			
Peas			
Peppers			
Pimentos			
Potatoes			
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			

Issued: 10-1-66

749

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SUMMER OILS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)		lbs. actual/A.	
Spinach		15	No time limitations.
Squash (Summer)			
Squash (Winter)			
Sweet Potatoes			
Swiss Chard			
Tomatoes			
Turnips			
Watermelons			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

3-TERT-BUTYL-5-CHLORO-6-METHYLURACIL*

PRINCIPAL FORMULATIONS: 80% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sugarcane (seed crop)		lbs. actual/A. 3.2	Louisiana only. Preemergence application in spring after off-barring and covering. Do not replant treated areas to any crop within 1 year after last application. Do not use treated cane for food or feed purposes.

* Proprietary Name: Sinbar

766a

Issued: 10-1-66

Follows page 766

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TETRACHLOROETHYLENE

PRINCIPAL FORMULATIONS: Used in mixtures with other toxic ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Grains:			
Barley		4 gal./	Used in mixtures with grain protectants
Corn		1000 bu.	and certain fumigants.
Oats			
Rice		1 gal./	Used in mixtures with grain protectants.
Rye		1000 sq. ft.	Thoroughly cover exposed surface of
Sorghum (Grain)			stored grain and adjacent areas with
Wheat			spray.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

N-(1,1,2,2-TETRACHLOROETHYLTHIO)-4-CYCLOHEXENE-1,2-DICARBOXIMIDE

PRINCIPAL FORMULATIONS: 75% and 80% wettable powder; 65% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Corn (field)		oz./100 lbs. 0.94	Seed treatment (slurry). Do not use treated seed for food, feed, or oil purposes.
Peanuts		3.25	Seed treatment (dust). Do not use treated seed for food, feed, or oil purposes.
Potatoes		2.5 lbs. actual/A.	No time limitations.
Sorghum		2.25	Seed treatment (slurry). Do not use treated seed for food, feed, or oil purposes.

Proprietary name: Difolatan

770

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,3,5,6-TETRACHLORONITROBENZENE

PRINCIPAL FORMULATIONS: 6% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Potatoes	25	0.01 lbs. actual per 100 lbs.	Single postharvest application to potatoes as they are placed in storage. Do not feed treated potatoes to livestock.

Issued: 10-1-66

770a

Follows page 770

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TETRADIFON*

PRINCIPAL FORMULATIONS: 25% wettable powder; 1 pound per gallon emulsifiable concentrate; 3% dust; 1% miscible

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	5.0	2.5	Do not apply after husk split. Do not use hulls for food or feed.
Apples		2.5	Not more than 3 applications after petal fall. Do not feed pomace from treated apples to livestock.
		1.25	Not more than 4 applications after petal fall. Do not feed pomace from treated apples to livestock.
	5.0	4.5	Prebloom and postharvest applications only.
Apricots		1.0	Not more than 2 applications after shuck-split.
		2.0	Not more than 1 application after shuck-split.
		3.0	Apply before shuck-split and postharvest only.
Avocados		3.0	Do not apply after fruit is set.
Beans			
Dried		1.0	Do not apply after pods start to form.
Blackberries		1.2	Postharvest application or when no fruit is present.
Blueberries		1.2	Postharvest application or when no fruit is present.
Boysenberries		1.2	Postharvest application or when no fruit is present.

*2,4,5,4'-tetrachlorodiphenyl sulfone
Proprietary name: "Tedion"

771

Issued: 10-1-66

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TETRADIFON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cantaloupes	1.0	0.5 (spray) 1.2 (dust)	No time limitations.
Cherries	5.0	1.0	Not more than 2 applications after shuck-split.
		2.0	Not more than 1 application after shuck-split.
		3.0	Apply before shuck-split and postharvest only.
Citrus Citron	2.0	5.0	Do not apply more than once per season while fruit is present.
Corn (field)		1.0	California only. Do not apply after ears begin to form. Do not feed treated forage to livestock.
Cotton		1.2	Do not apply after bolls begin to open. Do not graze dairy or meat animals in treated fields.
Crabapples	5.0	2.5	Not more than 3 applications after petal fall. Do not feed pomace from treated apples to livestock.
		1.25	Not more than 4 applications after petal fall. Do not feed pomace from treated apples to livestock.
		4.5	Prebloom and postharvest applications only.
Cucumbers			
Greenhouse	1.0	0.25 lbs./ 100 gals. water	Full coverage spray. Do not apply more than 3 times during fruiting season.
Field	1.0	0.5	Do not apply more than 3 times during fruiting season.
Eggplants		0.5	Do not apply after bloom buds appear.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TETRADIFON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Figs	6 (on fresh figs) 10 (on dried figs)	2.5	14 days. Do not apply more than twice during fruiting season.
Filberts		1.5	No time limitations.
		2.5	30 days.
Gooseberries		1.2	Postharvest application or when no fruit is present.
Grapefruit	2.0	5.0	Do not apply more than once per season while fruit is present.
Grapes	5.0	1.0	Not more than 3 applications during the fruiting period.
		1.5 (dust)	Not more than one application after bloom.
Honeydew melons	1.0	0.5 (spray) 1.2 (dust)	No time limitations.
Hops	30 (on fresh hops) 120 (on dried hops)	1.0 (spray) 1.2 (dust)	14 days. Do not apply more than twice during fruiting season. Do not feed straw to livestock.
Lemons	2.0	5.0	Do not apply more than once per season while fruit is present.
Limes	2.0	5.0	Do not apply more than once per season while fruit is present.
Loganberries		1.2	Postharvest application or when no fruit is present.
Mangoes		3.0	Do not apply after fruit is set.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TETRADIFON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Melons	1.0	0.5 (spray) 1.2 (dust)	No time limitations.
Muskmelons	1.0	0.5 (spray) 1.2 (dust)	No time limitations.
Nectarines	5.0	1.0	No more than 2 applications after shuck-split.
		2.0	Not more than 1 application after shuck-split.
		3.0	Apply before shuck-split and postharvest only.
Oranges	2.0	5.0	Do not apply more than once per season while fruit is present.
Peaches	5.0	1.0	Not more than 2 applications after shuck-split.
		2.0	Not more than 1 application after shuck-split.
		3.0	Apply before shuck-split and after harvest only.
Pears	5.0	1.25	Not more than 4 applications after petal fall.
		2.5	Not more than 3 applications after petal fall.
		4.5	Apply prebloom and postharvest applications only.
Peppers		0.75	Do not apply after edible parts begin to form.
Peppermint	100	0.66	10 days. Do not apply more than twice per season. Do not feed mint hay or spent mint hay to livestock.
Plums	5.0	2.5	Not more than 3 applications during the fruiting season.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TETRADIFON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Prunes	5.0	2.5	Not more than 3 applications during the fruiting season.
Pumpkins	1.0	0.5 (spray) 1.2 (dust)	No time limitations.
Quinces	5.0	1.25	No more than 4 applications after petal fall.
		2.5	Not more than 3 applications after petal fall.
		4.5	Apply prebloom and postharvest applications only.
Raspberries		1.2	Postharvest application or when no fruit is present.
Spearmint	100	0.66	10 days. Do not apply more than twice per season. Do not feed mint hay or spent mint hay to livestock.
Squash (winter)	1.0	0.5 (spray) 1.2 (dust)	No time limitations.
Strawberries	5.0	1.0 (spray) 1.2 (dust)	3 days. Do not apply more often than 35 day intervals during fruiting season.
Tangeloes	2.0	5.0	Do not apply more than once per season while fruit is present.
Tangerines	2.0	5.0	Do not apply more than once per season while fruit is present.
Tomatoes	1.0	0.5 (spray) 0.75 (dust)	Do not apply more than 3 times during fruiting season.
Walnuts		2.5	No applications after the shucks split.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TETRAETHYL DITHIOPYROPHOSPHATE*

PRINCIPAL FORMULATIONS: 5% aerosols

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Greenhouse Vegetables:			
Endive		0.1 lb./	21 days. Greenhouse aerosol formulation.
Lettuce		50,000 cu. ft.	Apply when temperature is between 75 and
Radishes			80°F and keep building closed for 2 hours.
Cucumbers		0.1 lb./	15 days. Greenhouse aerosol formulation.
Tomatoes		50,000 cu. ft.	Apply when temperature is between 75 and
			80°F and keep building closed for 2 hours.

*Proprietary name: "Sulfotepp"

Issued: 7-1-64

776

USDA Summary of Registered Agricultural Pesticide Chemical Uses

THIRAM*

PRINCIPAL FORMULATIONS: 65% wettable powder;
40%, 50% and 75% seed protectants;
2% paste;
10% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples	7	6.5 lbs.act./A.	No time limitations.
Bananas	7 1 (in pulp)	0.16% (in water) 2.0% paste	Postharvest application to crowns and fruit following removal of stems, at the rate of 5 gallons per 100 trays (40 lbs. each). Brush application to cut stems and crowns.
Beans			
Lima		1.7 oz./100 lbs.	Seed treatment (dry).
String		1.5 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food or feed.
Beans			
Snap		1.1 oz./100 lbs. 1.0 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Celery	7	0.25 lbs./ 1200 sq. ft. 2.0 lbs.act./A.	Transplant bed treatment only. 7 days. Remove residues by stripping, trimming, and washing.
Corn			
Field		1.5 oz./100 lbs. 1.3 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Sweet		1.5 oz./100 lbs. 4.0 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Cotton		1.5 oz./100 lbs. 1.5 lbs.act/A.	Soil and seed treatment in furrow at time of planting. Furrow treatment.

*Tetramethyl thiuram disulfide

781

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

THIRAM

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cottonseed:			
Acid delinted		3.0 oz./100 lbs. 2.3 oz./100 lbs.	Seed treatment (dry) Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Cowpeas		1.1 oz./100 lbs. 1.0 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Millet		1.2 oz./100 lbs. 2.0 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Okra		3.0 oz./100 lbs.	Seed treatment. Do not use treated seed for food or feed.
Onions		2.0 lbs. act./A.	Furrow treatment.
Bulbs		8.0 oz./10 lbs.	Bulb treatment (pelletized).
Sets		8.0 oz./10 lbs.	Seed treatment (dry).
Peaches	7	6.5 lbs. act./A.	7 days.
Peanuts			
Shelled		2.25 oz./100 lbs.	Seed treatment (dry or slurry).
Unshelled		1.5 oz./100 lbs.	Seed treatment (dry). Do not use treated seed for food, feed, or oil.
Peas		1.7 oz./100 lbs. 1.5 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry).
Rice		3.0 oz./100 lbs. 1.7 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Sesame		2.25 oz./100 lbs.	Seed treatment (dry or slurry). Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Beans (including dry, green, and lima)	7	6.0	No limitations on use of shelled beans as human food. Do not apply dusts to green or snap beans within 7 days of harvest. Do not apply sprays to green or snap beans after pods begin to form. Do not feed treated vines to dairy animals or animals being finished for slaughter.
Beans			
Seed		2.0 oz./bu.	Do not use as food or feed.
Beets		6.0	30 days. Do not use tops for food or feed.
Blackberries	7	4.0	Do not apply after fruit begins to form.
Blueberries		4.0	Do not apply after fruit begins to form.
Boysenberries	7	4.0	Do not apply after fruit begins to form.
Broccoli	7	8.0	Do not apply after edible parts begin to form or within 30 days of harvest.
Brussels Sprouts	7	8.0	Do not apply after edible parts begin to form or within 30 days of harvest.
Bush & Vine Fruits:			
Blackberries		25.0	Preplanting soil treatment or when no fruit is present. Single application.
Blueberries			
Boysenberries			
Cranberries		5.0	Wet or dry bait formulation. Do not apply broadcast when edible parts are present.
Currants			
Dewberries			
Gooseberries			
Grapes			
Huckleberries			
Loganberries			
Raspberries			
Strawberries			
Youngberries			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cabbage	7	2.5	Do not apply within 7 days of harvest if cabbage will be marketed after outer leaves have been removed. Do not apply after heads start to form if cabbage will be marketed with outer leaves intact.
		4.0	Do not apply after heads start to form.
Carrots	7	5.0	No time limitations.
Cauliflower	7	8.0	Do not apply after edible parts start to form or within 30 days of harvest.
Celery	7	5.0	Do not apply after plants start to bunch or after plants are half mature.
Cherries		12.0	Do not apply within 40 days of harvest or after second cover spray.
Citrus:			
Grapefruit	7	10.0	30 days. Dust, spray, or granular formulations. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Kumquats	7		
Lemons	7		
Limes	7		
Oranges	7		
Tangeloes	7	5.0	Wet or dry bait formulation. Do not apply broadcast when edible parts are present.
Tangerines	7		
		50.0	To be applied as a soil treatment when no fruit is present. Do not feed treated forage to dairy animals or animals being finished for slaughter. Single application.
Clover		2.5	Apply in early spring or after cutting before new growth is 4 inches tall.
		3.5	Do not feed treated forage to dairy animals or animals being finished for slaughter.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
(Non-Root Crops): (Cont.)		lbs. actual/A.	
Peppers		25.0	Single preplanting soil treatment or before edible parts begin to form.
Pimentos			
Pumpkins		2.5	Wet or dry bait formulations. Do not apply when edible parts are present, unless dosage is within limits of other applications of this insecticide.
Rutabagas			
Spinach			
Squash (summer)			
Squash (winter)			
Swiss Chard			
Tomatoes			
Watermelons			
Velvet Beans		6.0	Do not feed treated vines or pods to dairy animals or animals being finished for slaughter.
Velvet Beans			
Seed		2.0 oz./bu.	Do not use as food or feed.
Vetch		2.5	Apply in early spring or after cutting before new growth is 4 inches tall.
		6.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Walnuts	7	15.0	Dust or spray. No time limitations.
Watercress		4.0	Do not apply after seedling stage.
Wheat	5	3.5	Do not feed treated forage to dairy animals or animals being finished for slaughter. No restriction on the use of the grain.
Wheat			
Seed		2.0 oz./bu.	Do not use as food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:			
Beef Cattle	7 (in fat)	0.6% (in water)	Dip or spray. Do not apply within 28 days of slaughter.
		5.0% (dust)	Dust animals thoroughly. Do not apply within 28 days of slaughter.
		8.0% (in oil)	Apply by backrubbers. Do not permit animals access to treatment within 28 days of slaughter.
		5.0% (in oil)	Apply sparingly by brush or sponge. Wet tips of the hair. Do not soak the hide.
		2.0%	Apply locally as screw-worm and ear tick treatment. Formulated in combination with other insecticides as smear or liquid.
Dairy Cattle		2.0%	Apply locally as screw-worm and ear tick treatment. Formulated in combination with other ingredients as smear or liquid.
Goats Sheep	7 (in fat)	0.6% (in water)	Dip or spray. Do not apply within 28 days of slaughter.
		5.0% (dust)	Do not use on dairy goats. Dust animals thoroughly. Do not apply within 28 days of slaughter.
		2.0%	Apply locally as screw-worm and fleece worm treatment. Formulated in combination with other insecticides.
Swine	7 (in fat)	0.6% (in water)	Dip or spray. Do not apply within 28 days of slaughter.
		5.0% (dust)	Dust animals thoroughly. Do not apply within 28 days of slaughter.
		8.0% (in oil)	Apply by rubbing devices. Do not permit animals access to this treatment within 28 days of slaughter.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TRIBUTYLPHOSPHOROTRITHIOATE

PRINCIPAL FORMULATIONS:

75% emulsifiable concentrate; 5% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton	0.25 (cotton- seed)	lbs. actual/A. 1.5 (liquid) 2.0 (dust)	Apply when top bolls are firm to thumb pressure. A second application may be made 5-7 days later at the rate of 1.25 lbs./A. (liquid) or 0.75 lbs./A. (dust).

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,3,3-TRICHLORO ALLYL DIISOPROPYLTHIOLCARBAMATE*

PRINCIPAL FORMULATIONS: 46.2% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Barley		lbs. actual/A. 1.25	Preplanting soil incorporation. Plant crop within 3 weeks after application. or Preemergence soil incorporation before crop sprouts are 1/2 inch long. Do not graze livestock on treated areas. or Preplant soil incorporation in fall for spring planting. Do not plant oats next year. Do not graze livestock on treated crop.
Peas			
Dried Field		1.25	Preplanting soil incorporation. Plant crop within 3 weeks after application. or Preemergence soil incorporation. Apply soon after planting. Do not graze livestock on treated areas.
Wheat			
Durham Spring		1.0	Preplanting soil incorporation. Plant crop within 3 weeks after application. or Preemergence soil incorporation before crop sprouts are 1/2 inch long. Do not graze livestock on treated areas. or Preplant soil incorporation in fall for spring planting. Do not plant oats next year. Do not graze livestock on treated crop.

*Proprietary Name: "Avadex BW"

802

Issued: 10-1-66

Replaces page issued 7-1-64

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TRICHLORODENZIME*

PRINCIPAL FORMULATIONS: 66% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Irrigation Canals, Lakes and Ponds		50 gals. of concentrate per acre per ft.	Apply to water with submerged nozzles when aquatic weeds are growing.

*TCB

Issued: 7-1-64

803

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,3,6-TRICHLOROBENZOIC ACID*

PRINCIPAL FORMULATIONS: 26.1% liquid (as dimethylamine salts);
8.4% granular (as acid)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Croplands (undesignated)		lbs. chloro- benzoic acid equiv. per acre 20	Spot treatment. Apply when weeds are leafing out. Do not use treated area for crop production until chemical is inactivated.
Rangeland		20	Spot treatment. Apply when weeds are leafing out. Do not use treated area for crop production until chemical is inactivated. Do not contaminate water used for domestic or irrigation purposes. Keep grazing animals off treated areas for at least 1 year after treatment.

*2,3,6-TBA

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TRIETHANOLAMINE

PRINCIPAL FORMULATIONS: With various toxicants as animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals: Beef Cattle Dairy Cattle Goats Sheep Swine		10%	Formulated with other ingredients and applied locally as a screw-worm or ear tick remedy.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

3-(m-TRIFLUOROMETHYLPHENYL)-1,1-DIMETHYLUREA*

PRINCIPAL FORMULATIONS: 80% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A. 2.0	Preemergence application to soil surface or soil incorporated one inch deep. Do not graze livestock on treated area. or Postemergence application as a directed spray when crop is 3 inches tall to layby. Do not graze livestock on treated area.

*Proprietary name: Cotoran

811a

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TRIFLURALIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cabbage		lbs. actual/A. 1.0	Preplanting soil application. Incorporate with soil. Transplant crop immediately to 3 weeks after treatment. or Posttransplanting soil application as a directed spray when transplants no longer wilt. Incorporate with soil. Do not graze or feed forage from treated fields to livestock.
Cauliflower		1.0	Preplanting soil application. Incorporate with soil. Transplant crop immediately to 3 weeks after treatment. or Posttransplanting soil application as a directed spray when transplants no longer wilt. Incorporate with soil. Do not graze or feed forage from treated fields to livestock.
Cotton		1.0	Preplanting soil application up to 2-3 weeks before planting, incorporate with soil immediately. Do not graze or feed forage from treated fields to livestock. or Preemergence application immediately after planting and incorporate with soil. Do not graze or feed forage from treated fields to livestock. or Postemergence soil application. Single application from emergence to last cultivation. Incorporate into soil. Do not apply within 90 days of harvest. Do not graze or feed forage from treated fields to livestock.
		1.25	Preplanting soil incorporation in fall to land to be planted in cotton the following spring. Do not plant any food crop on treated land before cotton is planted.

812a

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TRIFLURALIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Okra		1.0	Preplanting soil application. Incorporate with soil immediately. Plant crop immediately, or within 3 weeks after application. Do not graze or feed forage from treated fields to livestock.
Peanuts (Spanish)		0.5	Preplanting soil application. Incorporate with soil. Plant crop immediately to 3 weeks after treatment. or Preemergence soil application immediately after planting. Incorporate with soil. Do not graze or feed forage from treated fields to livestock.
Peanuts (seed crop)		0.75	Preplanting or preemergence soil incorporation. Use with Diphenamid. Do not graze treated area or feed forage from treated fields to livestock. Do not use seed from treated fields for food, feed, or oil.
Peas (Southern)		1.0	Preplanting soil application. Incorporate with soil immediately. Plant crop immediately or within 3 weeks after application. Do not graze or feed forage from treated fields to livestock.
Peppers		1.0	Preplanting soil application. Incorporate with soil. Transplant crop immediately to 3 weeks after treatment. or Posttransplanting soil application as a directed spray when transplants are no longer wilted. Incorporate into soil. Do not graze or feed forage from treated fields to livestock. or Postemergence application to direct seeded crop at time of blocking as a directed spray. Incorporate into soil immediately. Do not graze or feed forage from treated fields to livestock.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TRIFLURALIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Safflower		lbs. actual/A. 1.5	Preplanting soil application. Incorporate with soil immediately. Plant crop immediately or within 3 weeks after application. Do not graze or feed forage from treated fields to livestock.
Soybeans		1.0	Preplanting soil application. Incorporate with soil immediately. Plant crop immediately or within 3 weeks after application. Do not graze or feed forage from treated fields to livestock.
		1.25	Preplanting soil incorporation in fall to land to be planted in soybeans the following spring. Do not plant any food crop on treated land before soybeans are planted.
Tomatoes		1.0	Preplanting soil application. Incorporate into soil. Transplant crop immediately to 3 weeks after treatment. or Posttransplanting soil application as a directed spray when transplants no longer wilt. Incorporate with soil. or Postemergence application to direct seeded crop at time of blocking as a directed spray. Incorporate into soil immediately. Do not graze or feed forage from treated fields to livestock.

812c

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TRIPHENYL TIN HYDROXIDE

PRINCIPAL FORMULATIONS: 20% and 50% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Pecans		lbs. actual/A. 3.1	Do not apply after shucks start to open. Do not graze livestock on treated areas.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZINC ION + MANGANESE ETHYLENE BISDITHIOCARBAMATE COMPLEX

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Papayas	10	2.0	No time limitations.
Pecans		15.0	60 days. Do not graze livestock on treated areas.
Peppers		1.8	Do not apply after fruit buds form.
Persian melons	7	2.4	No time limitations.
	0 (edible parts)		
Pineapples		16.0	Do not apply after fruit buds form.
Potatoes		1.6	No time limitations.
Pumpkins		2.4	Do not apply after edible parts begin to form.
Squash		2.4	Do not apply after edible parts begin to form.
Sugar beets		2.4	10 days. Do not feed treated tops to livestock.
Tomatoes	7	2.4	No time limitations.
Watermelon	7	2.4	No time limitations.
	0 (edible parts)		

824a

Issued: 10-1-66

Replaces page issued 10-1-65

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZINEB*

PRINCIPAL FORMULATIONS: 75% wettable powder
3.9%, 4.6%, 7.6%, 10.0%, and 16.25% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		12.0	Dormant to petal fall and postharvest.
Apples	7	12.0	No time limitations.
Apricots	7	7.6	Petal fall.
Asparagus		3.0	Postharvest.
Barley		0.5 oz./bu. <u>1/</u>	Seed treatment (dry or slurry). Do not use treated seed for food or feed.
Beans	7	3.0	7 days.
		1.8	Seed and soil treatment.
		1.1 oz./bu. <u>1/</u>	Seed treatment (dry).
		0.8 oz./bu. <u>1/</u>	Seed treatment (slurry). Do not use treated seed for food or feed.
Beets	7 (roots)	3.0	7 days if tops are to be consumed.
	25 (tops)		
Blackberries	7	1.2	14 days.
Boysenberries	7	1.2	14 days.
Broccoli	7	4.8	7 days.
Brussels sprouts	7	4.8	7 days.
Cabbage	7	4.8	7 days.
Cantaloupes	7	3.0	No time limitations.
Carrots	7	3.0	7 days if treated tops are to be used as food or feed.

*Zinc ethylene bisdithiocarbamate
1/ Used with captan

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZINEB

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cauliflower	7	4.8	7 days.
Celery	7	3.0	No time limitations. Remove residues by washing and stripping.
Cherries	7	7.5	7 days.
Chinese cabbage	25	3.0	7 days.
Citrus fruits:			
Grapefruit	7	10.0	No time limitations.
Kumquats	7		
Lemons	7		
Limes	7		
Oranges	7		
Tangeloes	7		
Tangerines	7		
Collards	25	3.0	7 days.
Corn	7	3.0	Do not feed forage to dairy animals or animals being finished for slaughter.
		0.5 oz./bu. $\frac{1}{2}$	Seed treatment (dry).
		0.5 oz./bu. $\frac{1}{2}$	Seed treatment (slurry).
			Do not use treated seed for food or feed.
Cotton		1.5	Apply during rainy weather. Repeat at 10-14 day intervals. Do not apply after bolls open. Do not graze meat or dairy animals in treated fields.
		3.75	Apply to row at time of planting.
Cottonseed:			
Acid delinted		1.1 oz./100 lbs. $\frac{1}{2}$	Seed treatment (dry).
		1.1 oz./100 lbs. $\frac{1}{2}$	Seed treatment (slurry).
Machine delinted		2.9 oz./100 lbs. $\frac{1}{2}$	Seed treatment (dry).
		2.1 oz./100 lbs. $\frac{1}{2}$	Seed treatment (slurry).
			Do not use treated seed for food, feed, or oil.

$\frac{1}{2}$ Used with captan

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZINEB

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		1bs. actual/A.	
Cranberries	7	6.0	Apply when plants show 5% bloom and repeat 2 weeks later, or at mid-bloom.
Cowpeas		1.1 oz./bu. ^{1/} 0.8 oz./bu. ^{1/}	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Cucumbers	7	3.0	No time limitations.
Currants	7	3.0	7 days.
Eggplants	7	3.0	No time limitations.
Endive	25	3.0	7 days.
Flax		1.3 oz./bu. ^{1/} 1.0 oz./bu. ^{1/}	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Gooseberries	7	3.0	7 days.
Grapes	7	3.0	7 days.
Hops	60	3.0	14 days.
Kale	25	3.0	7 days.
Kohlrabi	7	2.4	Do not apply after edible parts are half grown.
Lettuce	25	3.0	5 days on head lettuce. 7 days on leaf lettuce.
Loganberries	7	1.2	14 days.
Melons	7	3.0	No time limitations.
Mushrooms	7	0.07-0.1 lb./ 4000 sq. ft.	Apply to casing soil between breaks.
Muskmelons	7	3.0	No time limitations.
Mustard Greens	25	3.0	7 days.

^{1/} Used with captan

Issued: 7-1-64

831

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZINEB

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Nectarines	7	lbs. actual/A. 6.5	40 days.
Oats		0.5 oz./bu. ^{1/} 0.5 oz./bu. ^{1/}	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Onions	7	3.0	7 days on green onions.
Peaches	7	7.5	30 days.
Pears	7	7.5	7 days.
Peas	7	2.1 ^{1/}	Preplanting soil treatment.
		1.1 oz./bu. ^{1/} 0.8 oz./bu. ^{1/}	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
		2.4	10 days.
Pecans		15.0	45 days.
Peanuts	7	1.3	No time limitations. Do not use treated peanut hay for feed.
Peppers	7	6.5	No time limitations.
Plums	7	6.5	30 days.
Potatoes		3.0	Foliage application only.
		1 lb./50 gals. water	Seed piece dip.
		0.15 lbs. act./ 100 lbs.	Apply as a dust over cut or whole seed pieces.
Pumpkin	7	5.0	No time limitations.
Radishes	7	2.4	No time limitations.
Raspberries	7	1.2	14 days.
Rhubarb		4.0 ^{2/}	No time limitations.

^{1/} Used with captan

^{2/} Used in combination with ziram

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZINEB

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Romaine	25	3.0	7 days.
Sorghum (hulled)		0.8 oz./bu. ¹ / ₂	Seed treatment (dry or slurry). Do not use treated seed for food or feed.
Soybeans		0.8 oz./bu. ¹ / ₂	Seed treatment (dry or slurry). Do not use treated seed for food, feed, or oil.
Spinach	25	3.0	7 days.
Squash			
Summer	7	5.0	No time limitations.
Winter			
Strawberries	7	3.7	7 days.
Sugar beets		2.0	30 days. Do not feed tops to livestock.
Swiss chard	25	3.0	7 days.
Tomatoes	7	3.0	No time limitations.
Turnips			
Roots	7	3.0	No time limitations.
Tops	7	3.0	7 days if tops are to be used as food or feed.
Walnuts (black)		13.5	No time limitations.
Watermelons	7	3.0	No time limitations.
Wheat	1	2.1	3-4 weeks.
		0.5 oz./bu. ¹ / ₂	Seed treatment (dry or slurry). Do not use treated seed for food or feed.

¹/ Used with captan

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZIRAM*

PRINCIPAL FORMULATIONS: 7.6%, 10%, and 15% dusts;
23.7%, 76.0%, and 95.0% wettable powders; 8% paste

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	0.1	6.1	Early cover spray--5 weeks after petal fall.
Apples	7	9.1	Cover sprays. No time limitations.
		12.0	7 days.
Apricots	7	7.6	Early cover sprays.
Bananas		8.0% (paste)	Brush application to cut stems or crowns.
Beans	7	3.0	Do not apply to snap beans within 4 days of picking.
Beets	7	3.0	7 days of harvest if beet tops are used as food or feed.
Blackberries	7	3.0	Mid-June to early July.
Blueberries	7	4.6	3 weeks after full bloom.
Broccoli	7	3.0	7 days.
Brussels sprouts	7	3.0	No time limitations.
Bush fruits	7	3.0	No time limitations.
Cabbage	7	3.0	7 days.
Cantaloupes	7	3.8	No time limitations.
Carrots	7	3.0	7 days if carrot tops are to be used as food or feed.
Cauliflower	7	3.0	7 days.
Celery	7	3.0	Remove excess residue by stripping, trimming, and washing.
Cherries	7	4.0	7 days.

*Zinc dimethyl dithiocarbamate

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZIRAM

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Collards	7	3.0	No time limitations.
Cranberries	7	6.8	4 weeks after mid-bloom.
Cucumbers	7	3.8	No time limitations.
Cucurbits	7	3.8	No time limitations.
Eggplant	7	3.0	No time limitations.
Grapes	7	3.12 (spray)	Do not apply after fruit begins to form.
Kale	7	3.0	No time limitations.
Kohlrabi	7	3.0	7 days.
Loganberries	7	3.0	Do not apply after fruit begins to form.
Melons	7	3.8	No time limitations.
Muskmelons	7	3.8	No time limitations.
Nectarines	7	7.6	Early cover and before harvest. Remove excess residue by wiping or brushing.
Onions	7	3.8	No time limitations--do not apply to spring or green onions.
Peaches	7	7.6	Early cover and before harvest. Remove excess residue by wiping or brushing.
		11.25	Petal fall. Remove excess residues by washing or wiping.
Pears	7	7.6	Cover sprays--no time limitations.
Peas	7	3.0	7 days.
Pecans	0.1	15.0	5 cover sprays--last spray no later than August.
Peppers	7	3.0	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZIRAM

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Potatoes		3.8	Foliage application only.
Pumpkins	7	3.8	No time limitations.
Radishes	7	3.0	No time limitations.
Raspberries	7	3.8	Do not apply within 3 days of picking.
Rhubarb		4.0 ^{1/}	No time limitations.
Spinach	7	3.0	No time limitations.
Squash			
Summer	7	3.8	No time limitations.
Winter			
Strawberries	7	4.6	Remove residues by washing if application is made within 7 days of harvest.
Tomatoes	7	3.8	No time limitations.
Turnips	7	3.0	No time limitations.
Watermelons	7	3.8	No time limitations.

^{1/} Used with zineb

836

Issued: 10-1-66

Replaces page issued 7-1-64

